TOSHIBA

QOSMIO™ G25
Series User's Guide

If you need assistance:

❖ Toshiba's Support Website
   pcsupport.toshiba.com

❖ Toshiba Global Support Centre
   Calling within the United States (800) 457-7777
   Calling from outside the United States (949) 859-4273

For more information, see "If Something Goes Wrong" on page 281 in this guide.

2

Models: Qosmio™ G25 Series

ReWritable CD/DVD Drives

The computer system you purchased may include a ReWritable CD and/or DVD drive(s), among the most advanced data storage technologies available. As with any new technology, you must read and follow all set-up and usage instructions in the applicable user guides and/or manuals enclosed. If you fail to do so, this product may not function properly and you may lose data or suffer other damage. **TOSHIBA AMERICA INFORMATION SYSTEMS ("TOSHIBA"), ITS AFFILIATES AND SUPPLIERS DO NOT WARRANT THAT OPERATION OF THE PRODUCT WILL BE UNINTERRUPTED OR ERROR FREE. YOU AGREE THAT TOSHIBA, ITS AFFILIATES AND SUPPLIERS SHALL HAVE NO RESPONSIBILITY FOR DAMAGE TO OR LOSS OF ANY BUSINESS, PROFITS, PROGRAMS, DATA OR REMOVABLE STORAGE MEDIA ARISING OUT OF OR RESULTING FROM THE USE OF THE PRODUCT, EVEN IF ADVISED OF THE POSSIBILITY THEREOF.**

Protection of Stored Data

For your important data, please make periodic back-up copies of all the data stored on the hard disk or other storage devices as a precaution against possible failures, alteration, or loss of the data. **IF YOUR DATA IS ALTERED OR LOST DUE TO ANY TROUBLE, FAILURE OR MALFUNCTION OF THE HARD DISK DRIVE OR OTHER STORAGE DEVICES AND THE DATA CANNOT BE RECOVERED, TOSHIBA SHALL NOT BE LIABLE FOR ANY DAMAGE OR LOSS OF DATA, OR ANY OTHER DAMAGE RESULTING THEREFROM. WHEN COPYING OR TRANSFERRING YOUR DATA, PLEASE BE SURE TO CONFIRM WHETHER THE DATA HAS BEEN SUCCESSFULLY COPIED OR TRANSFERRED. TOSHIBA DISCLAIMS ANY LIABILITY FOR THE FAILURE TO COPY OR TRANSFER THE DATA CORRECTLY**.

Critical Applications

The computer you have purchased is not designed for any "critical applications." "Critical applications" means life support systems, medical applications, connections to implanted medical devices, commercial transportation, nuclear facilities or systems or any other applications where product failure could lead to injury to persons or loss of life or catastrophic property damage.
ACCORDINGLY, TOSHIBA, ITS AFFILIATES AND SUPPLIERS DISCLAIM ANY AND ALL LIABILITY ARISING OUT OF THE USE OF THE COMPUTER PRODUCTS IN ANY CRITICAL APPLICATIONS. IF YOU USE THE COMPUTER PRODUCTS IN A CRITICAL APPLICATION, YOU, AND NOT TOSHIBA, ASSUME FULL RESPONSIBILITY FOR SUCH USE.

FCC Notice "Declaration of Conformity Information"

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

❖ Reorient or relocate the receiving antenna.

❖ Increase the separation between the equipment and receiver.

❖ Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.

❖ Consult the dealer or an experienced radio/TV technician for help.

NOTE   Only Peripherals complying with the FCC Class B limits may be attached to this equipment. Operation with noncompliant peripherals or peripherals not recommended by Toshiba is likely to result in interference to radio and TV reception. Shielded cables must be used between the external devices and the computer's parallel port, monitor port, USB port, PS/2 port®, i.LINK® port and microphone jack. Changes or modifications made to this equipment not expressly approved by Toshiba or parties authorized by Toshiba could void the user's authority to operate the equipment.

4

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

❖ This device may not cause harmful interference.

❖ This device must accept any interference received, including interference that may cause undesired operation.

Contact either:

❖ Toshiba's Support Website at pcsupport.toshiba.com

❖ Or call the Toshiba Global Support Centre:

Within the United States at (800) 457-7777

Outside the United States at (949) 859-4273

Industry Canada requirement

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conformé à la norme NMB-003 du Canada.

FCC requirements

The following information is pursuant to FCC CFR 47, Part 68 and refers to internal modems.

This equipment complies with Part 68 of the FCC rules. On the bottom of this equipment is a label that contains, among other information, the FCC registration number and ringer equivalence number (REN) for this equipment. If requested, the information must be provided to the telephone company.

The modem connects to the telephone line by means of a standard jack called the USOC RJ11C.

A plug and jack used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC part 68 rules and requirements adopted by the ACTA. It is designed to be connected to a compatible modular jack that is also compliant.

The REN is used to determine the number of devices that may be connected to a telephone line. Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call. In most but not all areas, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local telephone company. For products approved after July 23, 2001, the REN for this product is part of the product identifier that has the format US:AAAEQ##TXXXX. The digits represented by the ## are the REN without a

decimal point (e.g., 03 is a REN of 0.3). For earlier products, the REN is separately shown on the label.

Connection to party line service is subject to state tariffs. Contact the state public utility commission, public service commission or corporation commission for information.

Telephone Company Procedures

The goal of the telephone company is to provide you with the best service it can. In order to do this, it may occasionally be necessary for them to make changes in their equipment, operations or procedures. If these changes might affect your service or the operation of your equipment, the telephone company will give you notice, in writing, to allow you to make any changes necessary to maintain uninterrupted service.

If Problems Arise

If this equipment causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advanced notice is not practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

If trouble is experienced with this equipment, for repair or limited warranty information, please contact Toshiba Corporation, Toshiba America Information Systems, Inc. or an authorized representative of Toshiba, or the Toshiba Support Centre within the United States at (800) 457-7777 or Outside the United States at (949) 859-4273. If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.

Disconnection

If you should ever decide to permanently disconnect your modem from its present line, please call the telephone company and let them know of this change.

Fax Branding

The Telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electronic device, including Fax machines, to send any message unless such message clearly contains in a margin at the top or bottom of each transmitted page or on the first page of the transmission, the date and time it is sent and an identification of the business or other entity, or other individual sending the message and the telephone number of the sending machine or such business, other entity, or individual. (The telephone number

6

provided may not be a 900 number or any other number for which charges exceed local or long-distance transmission charges.)

In order to program this information into your fax transmission, refer to the fax software instructions installed on this computer.

Alarm Equipment

If your home has specially wired alarm equipment connected to the telephone line, ensure the installation of this equipment does not disable your alarm equipment. If you have questions about what will disable alarm equipment, consult your telephone company or a qualified installer.

Instructions for IC CS-03 Certified Equipment

1   NOTICE: The Industry Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirements document(s). The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be coordinated by a representative designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

Caution: Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

2   The user manual of analog equipment must contain the equipment's Ringer Equivalence Number (REN) and an explanation notice similar to the following:

The Ringer Equivalence Number (REN) of this device can be found on the label affixed to your computer.

NOTICE: The Ringer Equivalence Number (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed 5.

3 The standard connecting arrangement (telephone jack type) for this equipment is jack type(s): USOC RJ11C.

Wireless Interoperability

The TOSHIBA Wireless LAN Mini PCI Card products are designed to be interoperable with any wireless LAN product that is based on Direct Sequence Spread Spectrum (DSSS) radio technology, and is compliant to:

❖ The IEEE 802.11 Standard on Wireless LANs (Revision A/B/G), as defined and approved by the Institute of Electrical and Electronics Engineers.

❖ The Wireless Fidelity (Wi-Fi) certification as defined by the Wi-Fi Alliance. The "Wi-Fi CERTIFIED" logo is a certification mark of the Wi-Fi Alliance.

CAUTION Bluetooth™ and Wireless LAN devices operate within the same radio frequency range and may interfere with one another. If you use Bluetooth™ and Wireless LAN devices simultaneously, you may occasionally experience a less than optimal network performance or even lose your network connection.

If you should experience any such problem, immediately turn off your Bluetooth™ or Wireless LAN device.

Please contact Toshiba PC product support on Web site http://www.toshiba-europe.com/computers/tnt/bluetooth.htm in Europe or pcsupport.toshiba.com in the United States for more information.

CAUTION This device is restricted to indoor use due to its operation in the 5.15 GHz to 5.25 GHz frequency range.

8

Wireless LAN and your Health

Wireless LAN products, like other radio devices, emit radio frequency electromagnetic energy. The level of energy emitted by Wireless LAN devices however is far much less than the electromagnetic energy emitted by wireless devices like for example mobile phones.

Because Wireless LAN products operate within the guidelines found in radio frequency safety standards and recommendations, TOSHIBA believes Wireless LAN is safe for use by consumers. These standards and recommendations reflect the consensus of the scientific community and result from deliberations of panels and committees of scientists who continually review and interpret the extensive research literature.

In some situations or environments, the use of Wireless LAN may be restricted by the proprietor of the building or responsible representatives of the organization. These situations may for example include:

❖ Using the Wireless LAN equipment on board of airplanes, or

❖ In any other environment where the risk of interference to other devices or services is perceived or identified as harmful.

If you are uncertain of the policy that applies on the use of wireless devices in a specific organization or environment (e.g. airports), you are encouraged to ask for authorization to use the Wireless LAN device prior to turning on the equipment.

Regulatory Information

The TOSHIBA Wireless LAN Mini PCI Card must be installed and used in strict accordance with the manufacturer's instructions as described in the user documentation that comes with the product. This device complies with the following radio frequency and safety standards.

Canada – Industry Canada (IC)

This device complies with RSS 210 of Industry Canada.

CAUTION The installer of this radio equipment must ensure that the antenna is located or pointed such that it does not emit RF field in excess of Health Canada limits for the general population; consult Safety Code 6, obtainable from Health Canada's Web site www.hc-sc.gc.ca/rpb. The RF device shall not be co-located with any other transmitter that has not been tested with this device.

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of this device.

L'utilisation de ce dispositif est autorisée seulement aux conditions suivantes: (1) il ne doit pas produire de brouillage et (2) l'utilisateur du dispositif doit étre prêt à accepter tout brouillage radioélectrique reçu, même si ce brouillage est susceptible de compromettre le fonctionnement du dispositif.

The term "IC" before the equipment certification number only signifies that the Industry Canada technical specifications were met.

To prevent radio interference to the licensed service, this device is intended to be operated indoors and away from windows to provide maximum shielding. Equipment (or its transmit antenna) that is installed outdoors is subject to licensing.

Pour empecher que cet appareil cause du brouillage au service faisant l'objet d'une licence, il doit etre utilize a l'interieur et devrait etre place loin des fenetres afin de Fournier un ecram de blindage maximal. Si le matriel (ou son antenne d'emission) est installe a l'exterieur, il doit faire l'objet d'une licence.

CAUTION This device is restricted to indoor use due to its operation in the 5.15 GHz to 5.25 GHz frequency range. Industry Canada requires this product to be used indoors for frequency range 5.15 GHz to 5.25 GHz to reduce the potential for harmful interference to co-channel Mobile Satellite systems.

High power radars are allocated as primary users of the 5.25 GHz to 5.35 GHz and 5.65 GHz to 5.85 GHz bands. These radar stations can cause interference with and/or damage this device.

Europe – EU Declaration of Conformity C E ①

❖ This device complies with the essential requirements of the R&TTE Directive 1999/5/EC with essential test suites as per standards:

EN 60950 Safety of Information Technology equipment

ETS 300 328 Technical requirements for radio equipment

ETS 300 826 General EMC requirements for radio equipment.

10

English:	Hereby, TOSHIBA Corp. Digital Media Network Company, declares that this Radio LAN device is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
Finnish:	Valmistaja TOSHIBA Corp. Digital Media Network Company vakuuttaa täten että Radio LAN device tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
Dutch:	Hierbij verklaart TOSHIBA Corp. Digital Media Network Company dat het toestel Radio LAN device in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.
	Bij deze TOSHIBA Corp. Digital Media Network Company dat deze Radio LAN device voldoet aan de essentiële eisen en aan de overige relevante bepalingen van Richtlijn 1999/5/EC.
French:	Par la présente TOSHIBA Corp. Digital Media Network Company déclare que l'appareil Radio LAN device est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.
	Par la présente, TOSHIBA Corp. Digital Media Network Company déclare que ce Radio LAN device est conforme aux exigences essentielles et aux autres dispositions de la directive 1999/5/CE qui lui sont applicables.
Swedish:	Härmed intygar TOSHIBA Corp. Digital Media Network Company att denna Radio LAN device står I överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.
Danish:	Undertegnede TOSHIBA Corp. Digital Media Network Company erklærer herved, at følgende udstyr Radio LAN device overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF
German:	Hiermit erklärt TOSHIBA Corp. Digital Media Network Company, dass sich dieser/diese/dieses Radio LAN device in Übereinstimmung mit den grundlegenden Anforderungen und den anderen relevanten Vorschriften der Richtlinie 1999/5/EG befindet". (BMWi)
	Hiermit erklärt TOSHIBA Corp. Digital Media Network Company die Übereinstimmung des Gerätes Radio LAN device mit den grundlegenden Anforderungen und den anderen relevanten Festlegungen der Richtlinie 1999/5/EG. (Wien)
Greek:	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ TOSHIBA Corp. Digital Media Network Company ΔΗΛΩΝΕΙ ΟΤΙ Radio LAN device ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/ΕΚ

Italian:	Con la presente TOSHIBA Corp. Digital Media Network Company dichiara che questo Radio LAN device è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.
Spanish:	Por medio de la presente TOSHIBA Corp. Digital Media Network Company declara que el Radio LAN device cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE.
Portuguese:	TOSHIBA Corp. Digital Media Network Company declara que este Radio LAN device está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.

USA – Federal Communications Commission (FCC)

This device complies with Part 15 of FCC Rules. Operation of the devices in a Wireless LAN System is subject to the following two conditions:

❖ This device may not cause harmful interference.

❖ This device must accept any interference that may cause undesired operation.

TOSHIBA is not responsible for any radio or television interference caused by unauthorized modification of the devices included with this TOSHIBA Wireless LAN Mini PCI Card, or the substitution or attachment of connecting cables and equipment other than specified by TOSHIBA.

The correction of interference caused by such unauthorized modification, substitution or attachment will be the responsibility of the user.

Caution: Exposure to Radio Frequency Radiation

The radiated output power of the TOSHIBA Wireless LAN Mini PCI Card is far below the FCC radio frequency exposure limits. Nevertheless, the TOSHIBA Wireless LAN Mini PCI Card shall be used in such a manner that the potential for human contact during normal operation is minimized. In normal operating configuration, the LCD in the upright position, the distance between the antenna and the user should not be less than 20 cm. The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. Antenna(s) used in 5.15 GHz to 5.25 GHz frequency band must be integral antenna which provide no access to the end user.

Refer to the Regulatory Statements as identified in the documentation that comes with those products for additional information.

12

Caution: Radio Frequency Interference Requirements

This device is restricted to indoor use due to its operation in the 5.15 GHz to 5.25 GHz frequency range. FCC requires this product to be used indoors for frequency range 5.15 GHz to 5.25 GHz to reduce the potential for harmful interference to co-channel Mobile Satellite systems.

High power radars are allocated as primary users of the 5.25 GHz to 5.35 GHz and 5.65 GHz to 5.85 GHz bands. These radar stations can cause interference with and/or damage this device.

NOTE The above Caution information applies to products that operate with an 802.11a device.

Taiwan

Article 14	Unless approved, for any model accredited low power radio frequency electric machinery, any company, trader or user shall not change the frequency, increase the power or change the features and functions of the original design.
Article 17	Any use of low power radio frequency electric machinery shall not affect aviation safety and interfere with legal communications. In the event interference is caused, the use of such electric machinery shall be immediately discontinued. Operation of such products can be resumed only when they are modified and can no longer cause interference.

The legal communications mentioned in the above item refer to radio communications operated in accordance with telecommunication laws and regulations.

Low power radio frequency electric machinery shall resist against interference from legal communications or from industrial, scientific and medical radio emission electric machinery.

Using this Equipment in Japan

In Japan, the frequency bandwidth of 2,400 MHz to 2,483.5 MHz for second generation low-power data communication systems such as this equipment overlaps that of mobile object identification systems (premises radio station and specified low-power radio station).
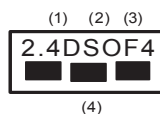
1. Sticker

Please put the following sticker on devices incorporating this product.

The frequency bandwidth of this equipment may operate within the same range as industrial devices, scientific devices, medical devices, microwave ovens, licensed radio stations and non-licensed specified low-power radio stations for mobile object identification systems (RFID) used in factory production lines (Other Radio Stations).

1. Before using this equipment, ensure that it does not interfere with any of the equipment listed above.

2. If this equipment causes RF interference to other radio stations, promptly change the frequency being used, change the location of use, or turn off the source of emissions.

3. Contact TOSHIBA Direct PC if you have problems with interference caused by this product to Other Radio Stations.

2. Indication

The indication shown below appears on this equipment.

```
 (1)  (2)  (3)
 2.4DSOF4
 ■■  ■■  ■■
     (4)
```

1 2.4: This equipment uses a frequency of 2.4 GHz.

2 DS: This equipment uses DS-SS modulation.

OF: This equipment uses OFDM modulation.

3 The interference range of this equipment is less than 40m.

4 ■■ ■■ ■■ This equipment uses a frequency bandwidth from 2,400 MHz to 2,483.5 MHz.

It is possible to avoid the band of mobile object identification systems.

3. TOSHIBA Direct PC

Monday – Friday: 10:00 – 17:00

Toll Free Tel: 0120-13-1100

Direct Dial: 03-3457-5916

Fax: 03-5444-9450

Device Authorization

This device obtains the Technical Regulation Conformity Certification and the Technical Conditions Compliance Approval, and it belongs to the device class of radio equipment of low-power data communication system radio station stipulated in the Radio Law and the Telecommunications Business Law of Japan.

The Name of the radio equipment: refer to the equipment label provided on the computer

JAPAN APPROVALS INSTITUTE FOR TELECOMMUNICATIONS EQUIPMENT

14

Approval Number: D01-1128JP

TELECOM ENGINEERING CENTER Approval Number: 03NY.A0018, 03GZDA0017

The following restrictions apply:

❖ Do not disassemble or modify the device.
❖ Do not install the embedded wireless module into other device.
❖ 5.17 GHz to 5.23 GHz for indoor use only.

Radio approvals for wireless devices

NOTE The following information is dependent on what type of wireless device is in your computer.

Approved Countries/Regions for use for the Atheros AR5BMB-43/44 Mini PCI Wireless network adapter

This equipment is approved to the radio standard by the countries/regions in the following table.

CAUTION Do not use this equipment except in the countries/regions in the following table.

NOTE This device works on passive scan only.

A peer-to-peer mode is not available in 802.11a and Turbo Mode.

802.11b (2.4 GHz)

Australia	Austria	Belgium
Canada	Denmark	Finland
France	Germany	Greece
Ireland	Italy	Liechtenstein
Luxembourg	Netherlands	New Zealand
Norway	Portugal	Sweden
Switzerland	UK	USA

Europe - Restrictions for use of 2.4 GHz Frequencies in European Community Countries

België/ Belgique:	For private usage outside buildings across public grounds over less than 300m no special registration with IBPT/BIPT is required. Registration to IBPT/BIPT is required for private usage outside buildings across public grounds over more than 300m. For registration and license please contact IBPT/BIPT.
	Voor privé-gebruik buiten gebouw over publieke groud over afstand kleiner dan 300m geen registratie bij BIPT/IBPT nodig; voor gebruik over afstand groter dan 300m is wel registratie bij BIPT/IBPT nodig. Voor registratie of licentie kunt u contact opnemen met BIPT.
	Dans le cas d'une utilisation privée, à l'extérieur d'un bâtiment, au-dessus d'un espace public, aucun enregistrement n'est nécessaire pour une distance de moins de 300m. Pour une distance supérieure à 300m un enregistrement auprès de l'IBPT est requise. Pour les enregistrements et licences, veuillez contacter l'IBPT.
Deutschland:	License required for outdoor installations. Check with reseller for procedure to follow.
	Anmeldung im Outdoor-Bereich notwendig, aber nicht genehmigungspflichtig.Bitte mit Händler die Vorgehensweise abstimmen.
France:	Restricted frequency band: only channels 1 to 7 (2400 MHz and 2454 MHz respectively) may be used outdoors in France. Please contact A.R.T. (http://www.art-telecom.fr) for applicable procedures to follow.
	Bande de fréquence restreinte: seuls les canaux 1- 7 (2400 et 2454 MHz respectivement) doivent être utilisés endroits extérieur en France. Vous pouvez contacter l'Autorité de Régulation des Télécommuniations (http://www.art-telecom.fr) pour la procédure à suivre.
Italia:	License required for indoor use. Use with outdoor installations not allowed.
	E'necessaria la concessione ministeriale anche per l'uso interno. Verificare con i rivenditori la procedura da seguire.
Nederland:	License required for outdoor installations. Check with reseller for procedure to follow.
	Licentie verplicht voor gebruik met buitenantennes. Neem contact op met verkoper voor juiste procedure.

16

802.11a (5 GHz)

Australia	Austria	Belgium
Canada	Denmark	Finland
France	Germany	Greece
Ireland	Italy	Liechtenstein
Luxembourg	Netherlands	New Zealand
Norway	Portugal	Sweden
Switzerland	UK	USA

Turbo Mode (5 GHz)

Canada	USA	

Europe - Restrictions for use of 5 GHz Frequencies in European Community Countries

European Community Countries	5150-5250 MHz Channels: 36, 40, 44, 48 Indoor Only	5250-5350 MHz Channels: 52, 56, 60, 64 Indoor Only	5470-5725 MHz Channels: 100, 104, 108, 112, 116, 120, 124, 128, 132, 136, 140 Indoor/Outdoor
Austria	O	x	x
Belgium, France, Switzerland/Lichtenstein	O	O	x
Denmark, Finland, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Sweden, UK	O	O	O
Iceland, Spain	O	O	O

O: allowed ×: forbidden

❖ To remain in conformance with European spectrum usage laws for Wireless LAN operation, the above 2.4 GHz and 5 GHz channel limitations apply. The user should use the wireless LAN utility to check the current channel of operation. If operation is occurring outside of the allowable frequencies as listed above, the user must cease operating the Wireless LAN at that location and consult the local technical support staff responsible for the wireless network.

❖ The 5 GHz Turbo mode feature is not allowed for operation in any European Community country.

❖ This device must not be operated in ad-hoc mode using channels in the 5 GHz bands in the European Community. Ad-hoc mode provides a direct communication between two client devices without a Wireless LAN Access Point.

❖ This device must be used with Access Points that have employed and activated a radar detection feature required for European Community operation in the 5 GHz bands. This device will operate under the control of the Access Point in order to avoid operating on a channel occupied by any radar system in the area. The presence of nearby radar operation may result in temporary interruption of operation of this device. The Access Point's radar detection feature will automatically restart operation on a channel free of radar. You may consult with the local technical support staff responsible for the wireless network to ensure the Access Point device(s) are properly configured for European Community operation.

Approved Countries/Regions for use for the Atheros AR5001X Mini PCI Wireless network adapter

This equipment is approved to the radio standard by the countries/regions in the following table.

CAUTION   Do not use this equipment except in the countries/regions in the following table.

NOTE   This device works on passive scan only.

A peer-to-peer mode is not available in 802.11a and Turbo Mode.

802.11b (2.4 GHz)

Australia	Austria	Belgium
Canada	Denmark	Finland
France	Germany	Greece
Ireland	Italy	Liechtenstein
Luxembourg	Netherlands	New Zealand
Norway	Portugal	Sweden
Switzerland	UK	USA

802.11a (5 GHz)

Australia	Austria	Belgium
Canada	Denmark	Finland
France	Germany	Greece
Ireland	Italy	Liechtenstein
Luxembourg	Netherlands	New Zealand
Norway	Portugal	Sweden
Switzerland	UK	USA

Turbo Mode (5 GHz)

Canada	USA	

Approved Countries/Regions for use for the Intel® PRO/Wireless LAN 2100 3B Mini PCI Adapter

This equipment is approved to the radio standard by the countries/regions in the following table.

CAUTION Do not use this equipment except in the countries/regions in the following table.

Argentina	Australia	Austria
Belgium	Brazil	Canada
Chile	Denmark	Finland
France	Germany	Greece
Iceland	Ireland	Italy
Japan	Liechtenstein	Luxembourg
Mexico	Netherlands	New Zealand
Norway	Peru	Portugal
Singapore	Spain	Sweden
Switzerland	UK	Uruguay
USA	Venezuela	

Approved Countries/Regions for use for the Toshiba Mini PCI Wireless LAN Card

This equipment is approved to the radio standard by the countries/regions in the following table.

CAUTION Do not use this equipment except in the countries/regions in the following table.

Australia	Austria	Belgium
Canada	Denmark	Finland
France	Germany	Greece
Hong Kong	Iceland	Ireland
Italy	Japan	Liechtenstein
Luxembourg	Malaysia	Netherlands
New Zealand	Norway	Philippines
Portugal	Singapore	Spain
Sweden	Switzerland	Thailand
UK	USA	

Approved Countries/Regions for use for the Foxconn 802.11b/g Wireless network adapter

This equipment is approved to the radio standard by the countries/regions in the following table.

CAUTION Do not use this equipment except in the countries/regions in the following table.

802.11b/g (2.4 GHz)

EU	Canada
USA	Australia
Japan	New Zealand

20

Bluetooth wireless technology Interoperability

Bluetooth™ Cards from TOSHIBA are designed to be interoperable with any product with Bluetooth wireless technology that is based on Frequency Hopping Spread Spectrum (FHSS) radio technology, and is compliant to:

❖ Bluetooth Specification as defined and approved by The Bluetooth Special Interest Group.

❖ Logo certification with Bluetooth wireless technology as defined by The Bluetooth Special interest Group.

CAUTION Bluetooth wireless technology is a new innovative technology, and TOSHIBA has not confirmed compatibility of its Bluetooth™ products with all PCs and/or equipment using Bluetooth wireless technology other than TOSHIBA portable computers.

Always use Bluetooth™ cards from TOSHIBA in order to enable wireless networks over two or more (up to a total of seven) TOSHIBA portable computers using these cards. Please contact TOSHIBA PC product support on Web site http://www.toshiba-europe.com/computers/tnt/bluetooth.htm in Europe or pcsupport.toshiba.com in the United States for more information.

When you use Bluetooth™ cards from TOSHIBA close to 2.4 GHz Wireless LAN devices, Bluetooth transmissions might slow down or cause errors. If you detect certain interference while you use Bluetooth™ cards from TOSHIBA, always change the frequency, move your PC to the area outside of the interference range of 2.4 GHz Wireless LAN devices (40 meters/43.74 yards or more) or stop transmitting from your PC. Please contact TOSHIBA PC product support on Web site http://www.toshiba-europe.com/computers/tnt/bluetooth.htm in Europe or pcsupport.toshiba.com in the United States for more information.

Bluetooth™ and Wireless LAN devices operate within the same radio frequency range and may interfere with one another. If you use Bluetooth™ and Wireless LAN devices simultaneously, you may occasionally experience a less than optimal network performance or even lose your network connection. If you should experience any such problem, immediately turn off either one of your Bluetooth™ or Wireless LAN. Please contact Toshiba PC product support on Web site http://www.toshiba-europe.com/computers/tnt/bluetooth.htm in Europe or pcsupport.toshiba.com in the United States for more information.

Bluetooth wireless technology and your Health

The products with Bluetooth wireless technology, like other radio devices, emit radio frequency electromagnetic energy. The level of energy emitted by devices with Bluetooth wireless technology however is far much less than the electromagnetic energy emitted by wireless devices like for example mobile phones.

Because products with Bluetooth wireless technology operate within the guidelines found in radio frequency safety standards and recommendations, TOSHIBA believes Bluetooth wireless technology is safe for use by consumers. These standards and recommendations reflect the consensus of the scientific community and result from deliberations of panels and committees of scientists who continually review and interpret the extensive research literature.

In some situations or environments, the use of Bluetooth wireless technology may be restricted by the proprietor of the building or responsible representatives of the organization. These situations may for example include:

❖ Using the equipment with Bluetooth wireless technology on board airplanes, or

❖ In any other environment where the risk of interference to other devices or services is perceived or identified as harmful.

If you are uncertain of the policy that applies on the use of wireless devices in a specific organization or environment (e.g. airports), you are encouraged to ask for authorization to use the device with Bluetooth wireless technology prior to turning on the equipment.

Regulatory statements

This product complies with any mandatory product specification in any country/region where the product is sold. In addition, the product complies with the following:

European Union (EU) and EFTA

This equipment complies with the R&TTE directive 1999/5/EC and has been provided with the CE mark accordingly.

Canada — Industry Canada (IC)

This device complies with RSS 210 of Industry Canada.

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of this device."

L'utilisation de ce dispositif est autorisée seulement aux conditions suivantes: (1) il ne doit pas produire de brouillage et (2) l'utilisateur du dispositif doit étre prét à accepter tout brouillage radioélectrique reçu, même si ce brouillage est susceptible de compromettre le fonctionnement du dispositif.

The term "IC" before the equipment certification number only signifies that the Industry Canada technical specifications were met.

Caution: FCC Interference Statement

This device complies with part15 of the FCC rules. Operation is subject to the following two conditions:

❖ This device may not cause harmful interference, and

❖ This device must accept any interference received, including interference that may cause undesired operation.

Note that any changes or modifications to this equipment not expressly approved by the manufacturer may void the authorization to operate this equipment.

Caution: Exposure to Radio Frequency Radiation

The radiated output power of the Bluetooth™ Card from TOSHIBA is far below the FCC radio frequency exposure limits. Nevertheless, the Bluetooth™ Card from TOSHIBA shall be used in such a manner that the potential for human contact during normal operation is minimized.

In order to comply with FCC radio-frequency radiation exposure guidelines for an uncontrolled environment, the Bluetooth™ Card from TOSHIBA has to be operated while maintaining a minimum body to antenna distance of 20 cm.

Refer to the Regulatory Statements as identified in the documentation that comes with those products for additional information.

The Bluetooth™ Card from TOSHIBA is far below the FCC radio frequency exposure limits.

Nevertheless, it is advised to use the Bluetooth™ Card from TOSHIBA in such a manner that human contact during normal operation is minimized.

NOTE   Changes or modifications made to this equipment not expressly approved by TOSHIBA or parties authorized by TOSHIBA could void the user's authority to operate the equipment.

Taiwan

Article 14	Unless approved, for any model accredited low power radio frequency electric machinery, any company, trader or user shall not change the frequency, increase the power or change the features and functions of the original design.
Article 17	Any use of low power radio frequency electric machinery shall not affect aviation safety and interfere with legal communications. In the event interference is caused, the use of such electric machinery shall be immediately discontinued. Operation of such products can be resumed only when they are modified and can no longer cause interference.

The legal communications mentioned in the above item refer to radio communications operated in accordance with telecommunication laws and regulations.

Low power radio frequency electric machinery shall resist against interference from legal communications or from industrial, scientific and medical radio emission electric machinery.

Using this equipment in Japan

In Japan, the frequency bandwidth of 2,400 MHz to 2,483.5 MHz for second generation low-power data communication systems such as this equipment overlaps that of mobile object identification systems (premises radio station and specified low-power radio station).

1. Sticker

Please put the following sticker on devices incorporating this product.

The frequency bandwidth of this equipment may operate within the same range as industrial devices, scientific devices, medical devices, microwave ovens, licensed radio stations and non-licensed specified low-power radio stations for mobile object identification systems (RFID) used in factory production lines (Other Radio Stations).

1. Before using this equipment, ensure that it does not interfere with any of the equipment listed above.

2. If this equipment causes RF interference to other radio stations, promptly change the frequency being used, change the location of use, or turn off the source of emissions.

3. Contact TOSHIBA Direct PC if you have problems with interference caused by this product to Other Radio Stations.

2. Indication

The indication shown below appears on this equipment.

```
   (1)  (2)  (3)
  ┌──────────────┐
  │  2.4FH1      │
  │ ┌──┬──┬──┐   │
  │ └──┴──┴──┘   │
  └──────────────┘
      (4)
```

1   2.4: This equipment uses a frequency of 2.4 GHz.

2   FH: This equipment uses FH-SS modulation.

3   The interference range of this equipment is less than 10m.

4   This equipment uses a frequency bandwidth from 2,400 MHz to 2,483.5 MHz. It is impossible to avoid the band of mobile object identification systems.

3. TOSHIBA Direct PC

Monday – Friday: 10:00 – 17:00

Toll Free Tel: 0120-13-1100

Direct Dial: 03-3457-5916

Fax: 03-5444-9450

Device Authorization

This device obtains the Technical Regulation Conformity Certification, and it belongs to the device class of radio equipment of low-power data communication system radio station stipulated in the Radio Law of Japan.

The Name of the radio equipment: EYXF2CS

TELECOM ENGINEERING CENTER

Approval Number: 01NYDA1305

The following restrictions apply:

❖   Do not disassemble or modify the device.

❖   Do not install the embedded wireless module into other device.

DVD-ROM, multi-function drive safety instructions

⚠ DANGER

The DVD-ROM and multi-function drives employ a laser system. To ensure proper use of this product, please read this instruction manual carefully and retain for future reference.

Never attempt to disassemble, adjust or repair a CD/DVD drive, CD-RW drive, Multi-drive or any other optical drive. You could damage the drive. You would also be exposed to laser light or other safety hazards, resulting in serious injury. Always contact an authorized Toshiba service provider, if any repair or adjustment is required.

Location of the required label

(Sample shown below. Location of the label and manufacturing information may vary.)

Product is certified by the manufacturer to comply with DHHS rules 21 CFR sub-chaper J applicable at the date of manufacture.

MANUFACTURED:

Toshiba Corporation
1-1, Shibaura 1-Chome
Minato-Ku, Tokyo 105-0061, Japan

**CLASS 1 LASER PRODUCT
LASER KLASSE 1**

⚠ DANGER

*CLASS 1 LASER PRODUCT
LASSER KLASSE 1*
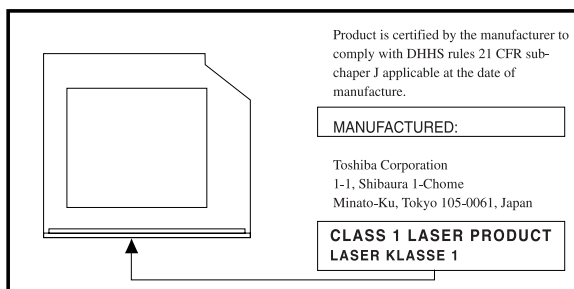
This appliance contains a laser system and is classified as a CLASS 1 LASER PRODUCT. To use this model properly, read the user's guide carefully and keep it for your future reference.

Never attempt to disassemble, adjust or repair a CD/DVD drive, CD-RW drive, Multi-drive or any other optical drive. You could damage the drive. You would also be exposed to laser light or other safety hazards, resulting in serious injury. Always contact an authorized Toshiba service provider, if any repair or adjustment is required.

26

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Notice

The information contained in this manual, including but not limited to any product specifications, is subject to change without notice.

Trademarks

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Microsoft and Windows are registered trademarks of Microsoft Corporation in the United States and/or other countries.

DirectX, Active Desktop, Windows Media, and DirectShow are registered trademarks of Microsoft Corporation.

LapLink is a registered trademark of Traveling Software, Inc.

ConfigFree is a trademark of Toshiba Corporation.

Wi-Fi is a registered trademark of the Wi-Fi Alliance.

Dolby - Manufactured by Toshiba under license from Dolby Laboratories/ Dolby and the double-D symbol are trademarks of Dolby Laboratories.

TouchPad is a trademark of Synaptics, Inc.

Secure Digital and SD are trademarks.

xD-Picture Card is a trademark of Fuji.

MultiMediaCard is a trademark of Infineon Technologies AG.

All other brand and product names are trademarks or registered trademarks of their respective companies.

Computer disposal information

This product contains mercury. Disposal of this material may be regulated due to environmental considerations. For disposal, reuse or recycling information, please contact your local government or the Electronic Industries Alliance at www.eiae.org.

Contents

30   **Contents**

Introduction

Welcome to the world of powerful, portable multimedia computing. With your Toshiba notebook computer, your work and entertainment can accompany you wherever you go.

You will find your operating system, Microsoft® Windows® XP Media Center Edition 2005 (MCE), already installed on your computer. Your operating system offers exciting features, multimedia enjoyment, and easy Internet access.

NOTE　The product specifications and configuration information are designed for a product Series. Your particular model may not have all the features and specifications listed or illustrated. For more detailed information about the features and specifications on your particular model, please visit Toshiba's Web site at pcsupport.toshiba.com.

While Toshiba has made every effort at the time of publication to ensure the accuracy of the information provided herein, product specifications, configurations, prices, system/component/options availability are all subject to change without notice. For the most up-to-date product information about your computer, or to stay current with the various computer software or hardware options, visit Toshiba's Web site at pcsupport.toshiba.com.

This guide

This guide introduces the computer's features. You can:

❖ Read the entire guide from beginning to end

❖ Skim through and stop when a topic interests you

❖ Use the table of contents and the index to find specific information

Safety icons

This manual contains safety instructions that must be observed to avoid potential hazards that could result in personal injuries, damage to your equipment, or loss of data. These safety cautions have been classified according to the seriousness of the risk, and the icons highlight these instructions as follows:

⚠ DANGER   Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

⚠ WARNING   Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION   Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

CAUTION   Indicates a potentially hazardous situation which, if not avoided, may result in property damage.

NOTE	Provides important information.

Other icons used

Additional icons highlight other helpful or educational information:

TECHNICAL NOTE: This icon indicates technical information about the computer.

HINT: This icon indicates helpful hints and tips.

DEFINITION: This icon indicates the definition of a term used in the text.

Other documentation

Your computer comes with the following documentation:

❖ An electronic version of the user's guide

❖ It may also contain guides for other programs that may come with your system.

For accessory information, visit Toshiba's Web site at accessories.toshiba.com.

Service options

Toshiba offers a full line of optional service programs to complement its limited warranty. To stay current on the most recent software and hardware options for your computer, and for other product information, be sure to regularly check the Toshiba Web site at pcsupport.toshiba.com.

If you have a problem or need to contact Toshiba, see "If Something Goes Wrong" on page 281.

Chapter 1

Getting Started

This chapter provides tips for working comfortably, describes how to connect components, and explains what to do the first time you use your computer.

Selecting a place to work

Your computer is designed to be used in a variety of locations and situations. This section provides guidelines for setting up your computing environment.

Creating a computer-friendly environment

Place the computer on a flat surface that is large enough for the computer and any other items you need to use, such as a printer. Leave enough space around the computer and other equipment to give adequate ventilation, otherwise, they may overheat.

42

To keep your computer in prime operating condition, protect your work area from:

❖ Dust, moisture, and direct sunlight

❖ Equipment that generates a strong electromagnetic field, such as stereo speakers (other than the speakers that are connected to the computer) or speakerphones

❖ Rapid changes in temperature or humidity and sources of temperature change such as air conditioner vents or heaters

❖ Extreme heat, cold, or humidity

❖ Liquids and corrosive chemicals

⚠ WARNING Never allow any liquids to spill into any part of your PC, and never expose the PC to rain, water, seawater, or moisture. Exposure to liquid or moisture can cause electric shock or fire, resulting in damage or serious injury. If any of these eventualities should accidentally occur, immediately:

1. Turn off the PC.

2. Disconnect the AC adapter from the power plug socket and PC.

3. Remove the battery pack.

Failure to follow these instructions could result in serious injury or permanent damage to the PC.

Do not turn on the power again, until you have taken the PC to an authorized service center.

Keeping yourself comfortable

Strain and stress injuries are becoming more common as people spend more time using their computers. However, with a little care and the proper use of the equipment, you can work comfortably throughout the day.

This section provides hints on avoiding strain and stress injuries. For more information, consult books on ergonomics, repetitive-motion injury, and repetitive-stress syndrome.

⚠ WARNING   Using the computer keyboard incorrectly may result in discomfort and possible injury. If your hands, wrists, and/or arms bother you while typing, stop using the computer and rest. If the discomfort persists, consult a physician.

Placement of the computer

Proper placement of the computer and external devices is important to avoid stress-related injuries. Consider the following when placing your computer.

❖ Place the computer on a flat surface at a comfortable height and distance. You should be able to type without twisting your torso or neck and look at the screen without slouching.

❖ If you use an external monitor, the top of the screen should be no higher than eye level.

❖ If you use a paper holder, set it at the same height and distance as the screen.

Seating and posture

When using your computer, maintain good posture with your body relaxed and your weight distributed evenly. Proper seating is a primary factor in reducing work strain. Some people find a backless chair more comfortable than a conventional chair.

Below eye level

Approximately
90° angles

Footrest
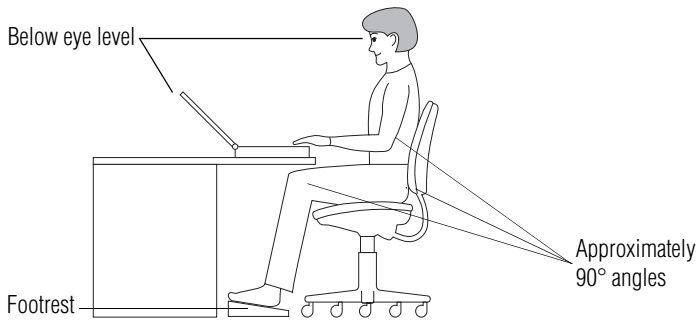
Correct posture and positioning of the computer

❖ Position your chair so that the keyboard is at or slightly lower than the level of your elbow. You should be able to type comfortably with your shoulders relaxed and your forearms parallel to the floor.

If you are using a conventional chair:

❖ Your knees should be slightly higher than your hips. If necessary, use a footrest to raise the level of your knees and ease the pressure on the back of your thighs.

❖ Adjust the back of your chair so that it supports the lower curve of your spine. If necessary, use a cushion to provide extra back support. Lower-back-support cushions are available at many office supply stores.

❖ Sit with your back straight so that your knees, hips, and elbows form approximately 90-degree angles when you work. Do not slump forward or lean back too far.

Lighting

Proper lighting can improve the readability of the display and reduce eyestrain.

❖ Position the display panel or external monitor so that sunlight or bright indoor lighting does not reflect off the screen. Use tinted windows or shades to reduce glare.

❖ Avoid placing your computer in front of a bright light that shines directly into your eyes.

❖ If possible, use soft, indirect lighting in your computer work area.

A CAUTION Your LCD display has a brightness approaching that of a TV device. We recommend that you adjust the brightness of your LCD to a comfortable level to prevent possible strain on your eyes.

Arms and wrists

❖ Avoid bending, arching, or twisting your wrists. Keep them in a relaxed, neutral position while typing.

❖ Exercise your hands, wrists and arms to improve circulation.

Work habits

The key to avoiding discomfort or injury from strain is to vary your activities. If possible, schedule a variety of tasks into your working day. Finding ways to break up the routine can reduce stress and improve your efficiency.

❖ Take frequent, short breaks to change position, stretch your muscles, and relieve your eyes. A break of two or three minutes every half hour is more effective than a long break after several hours.

❖ Avoid performing repetitive activities for long periods. Intersperse such activities with other tasks.

❖ Focusing your eyes on your computer screen for long periods can cause eyestrain. Look away from the computer frequently and focus your eyes on a distant object for at least 30 seconds.

A CAUTION Your LCD display has a brightness approaching that of a TV device. We recommend that you adjust the brightness of your LCD to a comfortable level to prevent possible strain on your eyes.

Other precautions

Your notebook computer is designed to provide optimum safety and ease of use, and to withstand the rigors of travel. You should observe certain precautions to further reduce the risk of personal injury or damage to the computer.

❖ Avoid prolonged physical contact with the underside or surface of the computer.

If the computer is used for long periods, its case can become very warm. You should avoid prolonged physical contact with the case to prevent skin irritation.

A WARNING Never allow any liquids to spill into any part of your PC, and never expose the PC to rain, water, seawater, or moisture. Exposure to liquid or moisture can cause electric shock or fire, resulting in damage or serious injury. If any of these eventualities should accidentally occur, immediately:

1. Turn off the PC.

2. Disconnect the AC adapter from the power plug socket and PC.

3. Remove the battery pack.

Failure to follow these instructions could result in serious injury or permanent damage to the PC.

Do not turn on the power again, until you have taken the PC to an authorized service center.

CAUTION | Some PC Cards can become hot with prolonged use. Overheating of a PC Card can result in errors or instability in its operation.

Be careful when you remove a PC Card that has been used for a long period.

CAUTION | Never apply heavy pressure to the computer or subject it to sharp impacts. Excessive pressure or impact can damage computer components or otherwise cause your computer to malfunction.

❖ Never turn off the computer if a drive light indicates a drive is active.

Turning off the computer while it is reading from or writing to a disk may damage the disk, the drive, or both.

❖ Keep the computer and disks away from objects that generate strong magnetic fields, such as large stereo speakers.

Information on disks is stored magnetically. Placing a magnet too close to a disk can erase important files.

CAUTION | Handle discs carefully. Avoid touching the surface of the disc. Grasp it by its center hole and edge. If you handle the disc incorrectly, you could damage the disc and possibly lose data.

❖ Scan all new files for viruses.

This precaution is especially important for files you receive via email or download from the Internet. Occasionally, even new programs you buy from a supplier may contain a

computer virus. You need a special program to check for viruses. Ask your dealer to help you.

Important information on your computer's cooling fan

Your computer may have a CPU cooling fan that cools the CPU by drawing outside air into the computer. The cooling fan may be located on the bottom of the computer.

CAUTION To prevent possible overheating of the CPU, make sure the air intake on the cooling fan is not blocked. The fan draws in air by creating a vacuum. If the fan is blocked, it could cause the CPU to run at a lower performance level or cause the computer to shut down. Loose items such as notebook and tissue paper, plastic wrappers, or other similar materials can block the air intake, preventing air from reaching the CPU. Do not use the computer on surfaces with objects that can be drawn in by the cooling fan.

NOTE The cooling fan location varies depending on the computer.

Setting up your computer

TECHNICAL NOTE: You must complete all setup steps up to and including "Setting up your software" on page 50 before adding external or internal components to your computer. These components include, but are not limited to, a mouse, keyboard, printer, memory, and PC Cards.

Your computer comes with a rechargeable battery pack that must be charged before you can use it.

To use external power or to charge the battery, you must attach the AC adapter. See .

Setting up your software

NOTE   The names of windows displayed, and the order in which windows appear, may vary according to your software setup choices.

The first time you turn on your computer, the Setup Wizard guides you through steps to set up your software.

1   From the welcome screen, click **Next** to enter the Setup Wizard.

2   Confirm acceptance of Microsoft's End User License Agreement and click **Next**. The wizard displays the Help Protect Your Computer screen.

3   Select the appropriate option and click **Next**.

4   Enter the computer name and description and click **Next**.

5   Select how your computer connects to the internet and click **Next**.

   The computer pauses for a moment while checking for an Internet connection.

   If an Internet connection could not be found, a window will display the message "An Internet connection could not be chosen." Click Next to continue.

NOTE   If you are connecting your computer to a network, consult your system administrator before you choose your computer name and network settings.

6 Follow the remaining prompts to complete the setup process.

Once you click the final screen, your computer restarts automatically.

Registering your computer with Toshiba

Product registration is strongly recommended and allows Toshiba to send the Customer periodic updates, announcements, and special offers applicable to the product. Product registration can be completed during the initial start up process of your computer. If you opt not to register at that time, you can either double-click the icon on your desktop or go to the Toshiba Web site at register.toshiba.com. Customer failure to complete Product Registration will not diminish Customer rights under this limited Warranty.

NOTE   To register online, your computer's modem must be connected to the internet or a voice-grade telephone line.

Adding external devices

NOTE   Before adding external devices, Toshiba recommends setting up your software. See "Setting up your software" on page 50.

Before starting to use your computer, you may also want to:

❖ Add more memory (see "Installing additional memory (optional)" on page 61)

❖ Connect a mouse (see "Using a mouse" on page 67)

❖ Connect a local printer (see "Connecting a local printer" on page 67)

❖ Connect an external diskette drive (see "Using the optional external USB diskette drive" on page 70)

❖ Connect external speakers or headphones (see "Using external speakers or headphones" on page 153)

❖ Connect a microphone (there is also an internal microphone) (see "Using a microphone" on page 151)

❖ Connect a digital or plasma TV (see "Connecting a digital or plasma television or VCR/DVD player" on page 73)

❖ Connect a standard TV antenna (see "Connecting a standard television, projector, or VCR/DVD player" on page 76)

❖ Install PC Cards (see "Inserting and removing PC Cards" on page 154)

Connecting to a power source

Your computer requires power to operate. Use the power cord/cable and AC adapter to connect the computer to a live electrical outlet, or to charge the computer's battery.

AC adapter

Power cord/cable
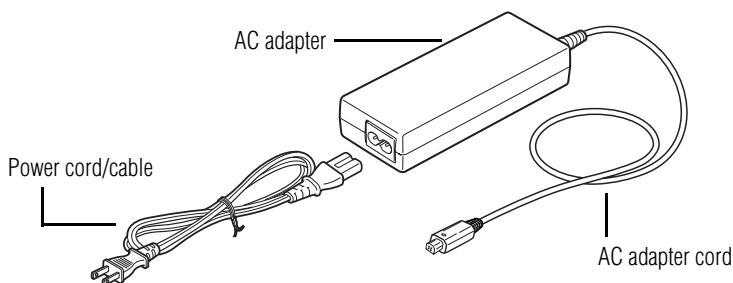
AC adapter cord

Sample power cord/cable and AC adapter

A WARNING   Hold the power cord/cable by its plug when you connect/ disconnect it. Do NOT pull the cord/cable itself. Doing so may damage the power cord/cable and result in a short circuit or electric shock.

⚠ WARNING When you connect the AC adapter to the computer, always follow the steps in the exact order as described in the User's Guide. Connecting the power cord/cable to a live electrical outlet should be the last step; otherwise, the adapter DC output plug could hold an electrical charge and cause an electrical shock or minor bodily injury when touched. As a general safety precaution, avoid touching any metal parts.

⚠ CAUTION Use only the AC adapter supplied with your computer or an equivalent adapter that is compatible. Use of any incompatible adapter could damage your computer. Toshiba assumes no liability for any damage caused by use of an incompatible adapter.

To connect AC power to the computer:

1 Connect the power cord/cable to the AC adapter.
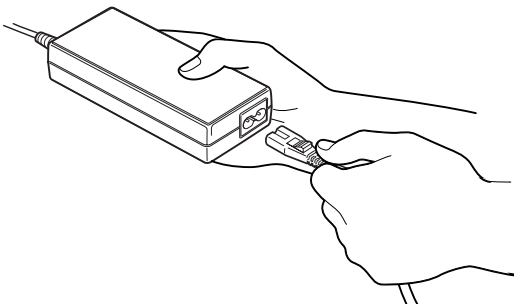
Sample connecting the power cord/cable to the AC adapter

⚠ WARNING Handling the cord on this product will expose you to lead, a chemical known to the State of California to cause birth defects or other reproductive harm. ***Wash hands after handling.***

⊖-⊙-⊙ **2** Plug the AC adapter cord into the DC-IN on the back of the computer.
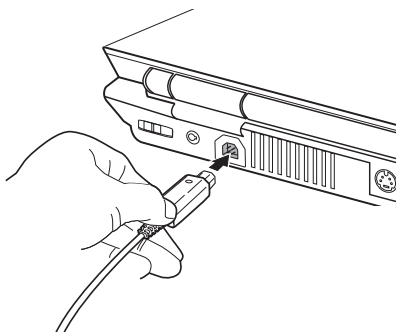
Sample connecting the AC adapter cord to the computer

3 Connect the power cord/cable to a live electrical outlet.

⚠ WARNING Damaged power cords/cables can cause fire or electric shock. Never modify, forcibly bend, place heavy objects on top of, or apply heat to the power cord/cable.

If the power cord/cable becomes damaged or the plug overheats, discontinue use. There is a risk of electric shock.

Never remove the power plug from the outlet with wet hands. Doing so may cause an electric shock.

If the electrical outlet is live, the system indicator panel's AC power light (⏻) glows blue. Additionally, an indicator light on the front of your computer lets you know the AC power status when the display is closed.

If the main battery is present, the battery light ▭:

❖ Glows amber while the battery is charging

❖ Glows blue when the battery is fully charged

❖ Is off (no illumination) when the computer is not connected to an external power source (for information on determining battery power, see "Monitoring battery power" on page 123

If the battery light flashes amber during charging, either the battery pack is malfunctioning, or it is not receiving correct input from the AC power supply. Disconnect the AC cable and remove the battery pack. See "If Something Goes Wrong" on page 281 for troubleshooting information.

Using the main battery

To charge the main battery, plug the computer into a live wall outlet. It takes several hours to charge the battery with the computer off. It takes much longer to charge the battery while the computer is on. For more information on battery use, see "Running the computer on battery power" on page 118.

CAUTION Once the battery is charged for the first time, avoid leaving the computer plugged in and turned off for more than a few hours at a time. Continuing to charge a fully charged battery can damage the battery.

TECHNICAL NOTE: When your computer is using all of the power provided by the AC Adapter to run applications, features, and devices, the recharging of the battery cannot occur. Your computer's Power Saver utility can be used to select a power level setting that reduces the power required for system operation and allows the battery to recharge.

TECHNICAL NOTE: The RTC battery does not charge while the computer is turned off, even when AC power is attached.

The RTC battery charges when the computer is powered on.

NOTE

Battery life and charge time may vary depending on the applications, power management settings, and features used.

Using the computer for the first time

Opening the display panel

Press the display latch and lift the display panel.
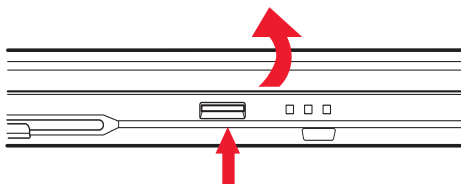
Sample opening the display panel

CAUTION

To avoid damaging the display panel, do not force it beyond the point where it moves easily.

Never lift the computer by the display panel.

Small bright dots may appear on your TFT display when you turn on your computer. Your display contains an extremely large number of thin-film transistors (TFT) and is manufactured using high-precision technology. Any small bright dots that may appear on your display are an intrinsic characteristic of the TFT manufacturing technology.

NOTE   Over a period of time, and depending on the usage of the computer, the brightness of the LCD screen will deteriorate. This is an intrinsic characteristic of LCD technology.

Over a period of time, and depending on the usage of the computer, the brightness of the LCD screen will deteriorate. This is an intrinsic characteristic of LCD technology.

The screen may be dimmer when the computer is operated on battery power. You may not be able to increase the brightness of the screen until you plug the computer into AC power again.

Your computer's features and specifications

Certain notebook chassis are designed to accommodate all possible configurations for an entire product Series. Your selected model may not have all the features and specifications corresponding to all of the icons or switches shown on the notebook chassis, unless you have selected all those features.

This information applies to all the features and icons described in this guide.

Below are examples of some of the many possible icons that may come on your computer:

Sample system icons

Turning on the power

1   Make sure any external devices (such as the AC adapter, if you plan to use AC power rather than battery power) are properly connected and ready.

CAUTION   The first time you turn on the computer you should not have any accessories or third-party devices attached.

2 Check to ensure that all disc drives are empty.

3 Press and hold the power button until the on/off light on the system indicator panel glows blue—approximately one second.

An indicator light on the front of your computer lets you know the system indicator status when the display is closed.

CAUTION Never turn off the computer while any of the drives are in use. Doing so may damage the media in use and result in loss of data.

4 The preinstalled operating system loads automatically.

CAUTION When you turn on the computer for the first time, do not turn off the power again until the operating system has loaded completely.

Sample turning on the power

The preinstalled operating system loads automatically.

CAUTION Never turn off the computer while any drive is in use.

Using the TouchPad™

The TouchPad, the small square cutout located in front of the keyboard, is sensitive to touch. To move the cursor, simply move your finger on the TouchPad in the direction you would like to move the cursor:

❖ To move the cursor to the top of the page, push your finger forward on the TouchPad.

❖ To move the cursor to the bottom of the page, drag your finger toward yourself.

❖ To move the cursor to the right side of the page, slide your finger across the TouchPad from left to right.

❖ To move it to the left side, slide your finger from right to left.

NOTE   Because the TouchPad is much smaller than the display screen, moving your cursor across the screen often means having to move your finger several times across the TouchPad in the desired direction.

Once you have positioned your cursor, you can either click it into place by double-tapping the TouchPad or clicking the control buttons.

Scrolling with the TouchPad™

There are two active regions on the TouchPad that allow you to scroll as you would with any wheel device on a mouse or trackball.

To scroll vertically, run your finger up or down along the right edge of the TouchPad. To scroll horizontally, run your finger along the bottom edge of the TouchPad.

Using the Control buttons

When a step instructs you to click or choose an item, move the cursor to the item, then press and release the primary (left-hand) button. To double-click, press the primary button twice in rapid succession. The primary button usually corresponds to the left mouse button.

The function of the secondary (right-hand) button depends on the program you are using. It usually corresponds to the right mouse button. Check your program's documentation to determine if it uses the right mouse button.

Disabling or enabling the TouchPad

The TouchPad is enabled by default. To change the enable/disable the TouchPad setting:

1   Click **Start**, **Control Panel**.

    The Control Panel window appears.

2   Click **Printers and Other Hardware**.

3   Click **Mouse Properties**.

    The Mouse Properties window appears.

4   Click the **TouchPAD ON/OFF** tab.

    The TouchPad ON/OFF tab appears.

5   Select **Disable** or **Enable**, whichever is appropriate.

6   Click **Apply**.

7   Click **OK**.

    The Mouse Properties window closes.

8   Close the Printers and Other Hardware window.

9   Close the Control Panel window.

NOTE

The Fn + F9 shortcut can be used to disable or enable the TouchPad (see "Disabling or enabling the TouchPad" on page 318).

Installing additional memory (optional)

HINT: To purchase additional memory modules, see the accessories information packaged with your system or visit accessories.toshiba.com.

CAUTION

Before you install or remove a memory module, turn off the computer using the Start menu. If you install or remove a memory module while the computer is in Stand by or Hibernation mode, data will be lost.

Your computer comes with enough memory to run most of today's popular applications. You may want to increase the computer's memory if you use complex software or process large amounts of data.

Additional memory comes in various capacities (to stay current on the most recent software and hardware options for your computer, and for other product information, be sure to regularly check the Toshiba Web site at accessories.toshiba.com). There are two memory slots. Your system may have both slots occupied.

CAUTION

If you use the computer for a long time, the memory modules become hot. If this happens, let the memory modules cool to room temperature before you replace them.

You need a standard Phillips no.1 screwdriver for this procedure.

CAUTION To avoid damaging the computer's screws, use a standard Phillips no. 1 screwdriver that is in good condition.

The computer has two memory module slots—Slot A and Slot B. You can install one or two memory modules.

If the computer is on, begin at step 1; otherwise, skip to step 3.

1   If the computer is on, click **Start**, then click **Turn off computer**. See "Using the Turn off command" on page 108 for more information.

The Turn off computer window appears.

2   Click **Turn Off**.

The operating system turns off the computer.

3   Unplug and remove any cables connected to the computer, including the AC adapter cord/cable.

4   Close the display panel and turn the computer upside down to locate the memory module slot cover.

Memory module slot cover
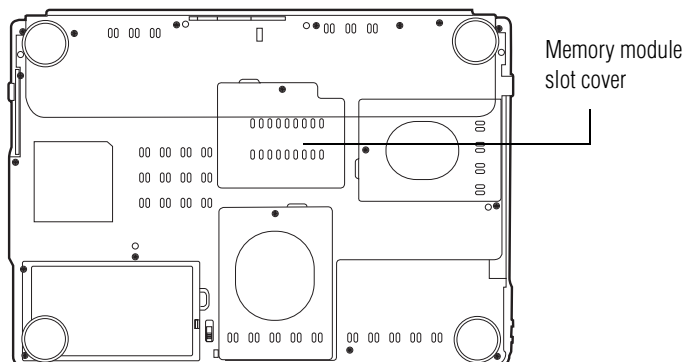
Sample locating the memory module slot cover

5   Remove the battery (see "Changing the main battery" on page 128).

6   Using a standard Phillips no. 1 screwdriver, loosen the captive screw that secures the memory module slot cover, then remove the memory module slot cover.
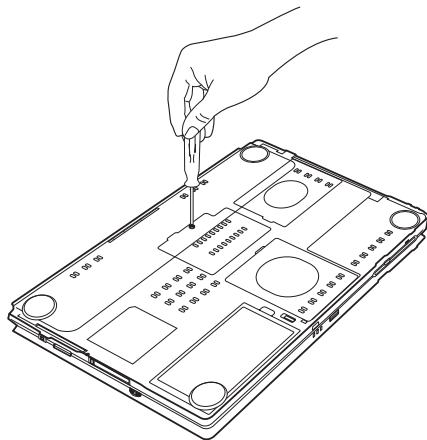
Sample removing the memory module slot cover

7   Place the memory module slot cover in a safe place so that you can retrieve it later.

CAUTION Static electricity can damage the memory module. Before you handle the module, touch a grounded metal surface to discharge any static electricity you may have built up.

To avoid damaging the memory module, be careful not to touch its gold connector bar (on the side you insert into the computer).

---

8   Remove the new memory module from its antistatic packaging.

9 Holding the memory module by its edges so that the gold connector bar faces the slot, fit the memory module into the socket.

10 Gently press down on the memory module connector until the clips snap into place.

Do not force the memory module into position. The memory module should be level when secured in place.
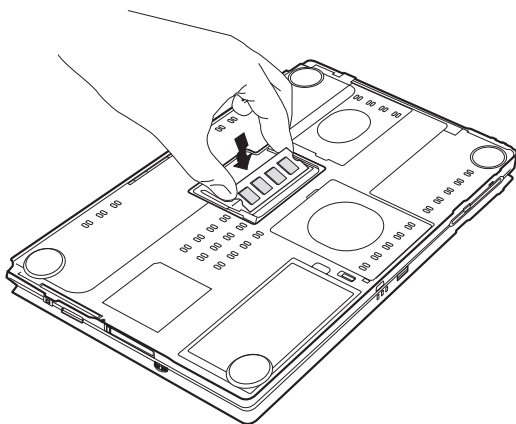
Sample inserting the memory module into the slot

The clips on either side of the memory module click to secure the memory module.

CAUTION   Avoid touching the connectors on the memory module or on the computer. Grease or dust on the connectors may cause memory access problems.

11 Replace the memory module slot cover and tighten the screw.

12 Turn the computer over and restart it.

You can now continue setting up the computer. When the operating system has loaded, you can verify that the computer has recognized the additional memory.

If you are adding extra memory after setting up the computer, verify that the computer has recognized it correctly as described in .

Removing a memory module

To remove the memory module:

1   Turn the computer off and remove all cables connected to the computer, including the AC adapter cable.

CAUTION   Do not try to remove a memory module with the computer turned on. You can damage the computer and the device.

Do not remove the memory module while the computer is in Stand By mode. The computer could hang up the next time you turn it on and data in memory will be lost. In either of the above cases, the Stand By configuration will not be saved.

The following message appears when you turn on the power:

Warning: Resume Failure

Press Any Key To Continue

If the computer hangs up when you turn it on, perform the following: Press the power button and hold it down for at least ten seconds, then turn the power on again.

---

2   Close the display panel and turn the computer upside down and remove the main battery module.

3   Loosen the screw that secures the memory slot cover, then remove the memory slot cover.

4 Place the screw and the cover in a safe place so that you can retrieve them later.

5 Pull the clips away from the memory module.

The memory module pops partially out of the slot.

6 Carefully remove the module from the slot.
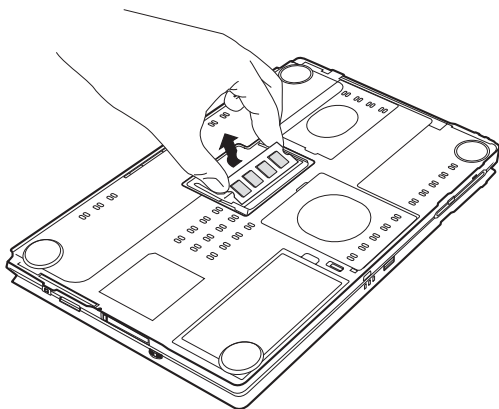
Sample removing the memory module

7 Replace the memory module slot cover and fasten the screw.

8 Turn the computer over and restart it.

You must have at least one memory module installed for the computer to work.

Checking total memory

When you add or remove memory, you can check that the computer has recognized the change. To do this:

1 Click **Start**, then click **Control Panel**.

2 Click **Performance and Maintenance**.

3   Click **System**.

4   The **General** tab view automatically appears and shows total memory.

If the computer does not recognize the memory configuration, turn off the computer, remove the memory slot cover, and make sure the memory module is seated properly, as described in step 10 on page 64 of "Installing additional memory (optional)."

Using an external keyboard

If you prefer to use a full-size keyboard, you can attach one to your computer. The computer's USB ports support any USB-compatible keyboard.

Using a mouse

You may want to use a mouse instead of the computer's built-in TouchPad. You can attach an external mouse to one of the computer's USB ports, provided the mouse is USB-compatible.

NOTE   After logging on to your system, the mouse cursor may move to the upper-right side of the screen. If this occurs, press the Esc or Windows key to return it to its original position.

Connecting a local printer

Before you can connect a printer, you need a suitable USB printer cable, which may have been provided with your printer. Otherwise, you can purchase one from a computer or electronics store.

CAUTION Your printer documentation may require you to install the printer software before physically connecting the printer to your computer. If you do not install the software as instructed by the printer manufacturer, the printer may not function correctly.

CAUTION Never connect the printer cable while the computer's power is on. Doing so may damage the printer, the computer, or both.

NOTE Read the documentation that came with your printer. Follow the manufacturer's instructions when connecting a local printer.

These instructions assume you have a USB printer. Consult the document that came with your printer to verify the connection type.

To connect the printer:

1 If the computer is on, turn it off.

2 Connect the printer cable to the printer and then connect the other end to one of the computer's USB ports.

3 Plug the printer's power cable into a live electrical outlet.

4 See your printer documentation for additional configuration steps.

For more information about printing, see "Printing your work" on page 97.

Setting up your printer

Setting up a printer involves selecting a printer driver. This special program acts as a translator that turns your document into a form the printer can understand.

If you are using any non-Windows® programs, set up a printer driver for each of those programs. Refer to your program's documentation for more information.

TECHNICAL NOTE: If you have the manufacturer's disc that came with your printer, you can use it to install the printer on your computer. The manufacturer's disc may include additional drivers and fonts.

If you have a printer, follow these steps to set it up the first time. You only need to set the printer up once.

1 Click **Start**, **Printers and Faxes**.

The Printers and Faxes window appears.

2 Click **Add Printer**.

The Add Printer Wizard appears.

Sample Add Printer Wizard

3 Follow the on-screen instructions to set up your printer.

TECHNICAL NOTE: Some printers require a specific installation process. Refer to your printer installation guide for instructions.

Using the optional external USB diskette drive

The optional external USB diskette drive allows you to use diskettes and is useful for installing software on the hard disk, exchanging information with other systems, and making backup copies of the files stored on your hard disk.

Connecting an optional external diskette drive

Some operations, such as creating a password service diskette, require a diskette drive designed for use with 3.5-inch diskettes.
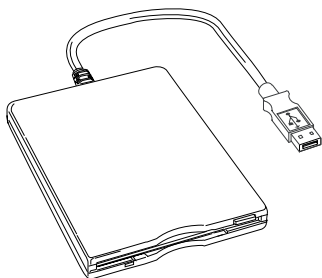
Sample optional external USB diskette drive

To connect an optional external USB diskette drive, connect the cable to one of the USB ports on your computer.
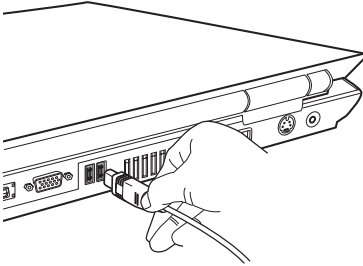
Sample connecting an optional external USB diskette drive

Connecting external display devices

Your computer comes with a built-in LCD display, but you can also connect the following types of external display devices to the video ports described below:

❖ A plasma or digital television or VCR/DVD player via the Component Video Out port

❖ A standard television, projector, or VCR/DVD player via the S-video Out port

❖ An external monitor or projector via the RGB (monitor) Out port

Before connecting a television, video projector, monitor or other external display device, configure your computer for the type of device you are connecting. To do this, refer to the documentation for your operating system and the device.

RGB (monitor) port

Coaxial antenna In

S-video Out

Component Out

S-video In

Composite In (Monitor In)
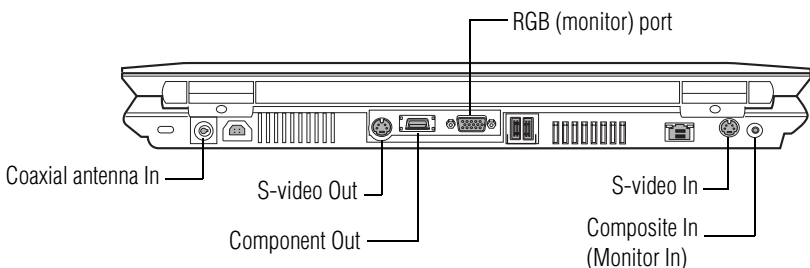
Sample back of system

You cannot connect both the S-Video port and the Component Out port to the same device at the same time. The computer must be rebooted when switching between the S-Video and Composite port cables.

The system display default is set at the factory to S-Video Out.

Connecting the display device

If you are connecting a television or other video display device to the computer's Component Video Out port, first refer to "Selecting video cables" below for guidelines on choosing a video cable, then refer to 'Connecting a standard television, projector, or VCR/DVD player' below.

If you are connecting an SVGA monitor, skip to "Connecting an external monitor or projector" on page 78.

Selecting video cables

To connect a device to the S-video port, you must purchase an S-video cable. For the best video quality, always use a properly shielded cable.

HINT: Toshiba recommends using a cable no longer than 20 feet (approximately 6 meters).

Using a poor-quality cable may result in a dull or fuzzy picture, poor color, ghosting, video noise, or loss of video.

Connecting a digital or plasma television or VCR/ DVD player

TECHNICAL NOTE: You must have digital TV service to watch digital TV on your computer. See your TV service provider for more information.

You can watch digital television by connecting to the Component Video Out port on your computer.

NOTE   You cannot view digital TV on the display device if you are using it as a monitor.

To do this:

1   Connect the digital television video cable to the Component Video Out port on the back of your computer.

2   Connect the three RCA jacks on the other end of the cable to your digital television. Refer to the manual that came with the television for more information.

3   Turn on your computer.

4   While holding down Fn, press F5 repeatedly, pausing between each press, until you get the desired setting. For more information, see "Directing the display output when you turn on the computer" on page 78.

Adjusting the Component Video Out Modes

Your computer supports the following Component Video Out modes:

❖ 525p (480p, D2)

❖ 750p (720p, D4)

❖ 1125 (1080i, D3)

❖ 525i (480i, D1)

Follow these steps to adjust the Component Video Out modes.

1 Right-click on the Windows Desktop and select **Properties**.

The Display Properties dialog box appears.

2 In the Display Properties dialog box, click the **Settings** tab.

3 Click the **Advanced** button.

4 Click the **GeForce Fx Go6600** tab.
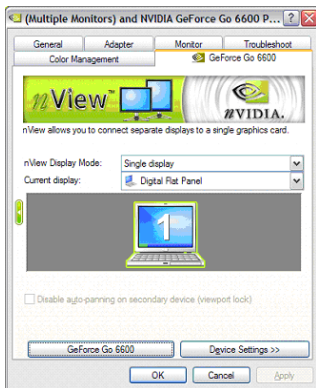
Sample GeForce Fx 6600 tab

5 Click the **nView Display Mode** pull-down arrow and select **Clone**.
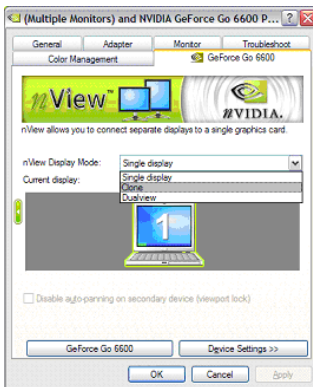
Sample selecting Clone display mode

6   Click the **Primary display / Secondary display** pull-down arrow and choose **Digital Flat Panel/TV**.
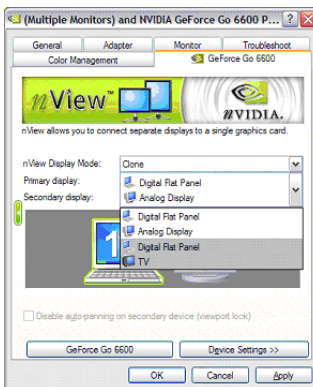
Sample selecting digital flat panel/TV

7   Click the TV icon to select the TV device.

8   Click **Device Settings/Select TV Format**, then select **750p (720p, D4)**.

NOTE   Most HDTVs currently on the market can handle this resolution. Further refinements of the Display Properties may be needed.

9   Click **Apply**, then **OK**.

Your system's Component Video Out port is now activated. You can now toggle between the internal display and HDTV using the Fn+F5 hot key combination, or the TV Out button.

Connecting a standard television, projector, or VCR/DVD player

NOTE   S-video cables are not included with your computer. To connect a device to the S-video Out port, you will need to purchase an S-video cable.

To connect a standard television, projector, or VCR/DVD player:

1   Connect one end of the video cable to the external video device.

Refer to the documentation provided with the device for the location of its Video In port.

2   Connect the other end of the video cable to the S-video Out port on the back of the computer.

3   Turn on the external video device. Make sure the input to the device is correctly set for the S-Video port. (See the device's documentation for more information.)

4   On your computer, press the TV Out button, or toggle the display using the Fn+ F5 hot key combination. (The TV

Out button is located above and to the right of the
keyboard.)

NOTE

If you do not see the image transfer from your computer screen
to the external video device, modify the Display Properties as
described in "Adjusting the Display Properties" on page 77.

Adjusting the Display Properties

When using the S-Video display port, the desktop shown on
your TV may be larger than the screen can show. As a result,
you may have to adjust the Display Properties to show the
entire desktop on the TV without having to pan the display.

To adjust the display properties

1   Right-click on the Windows Desktop and click **Properties**.
   The Display Properties dialog box appears.

2   In the Display Properties dialog box, click the **Settings** tab.
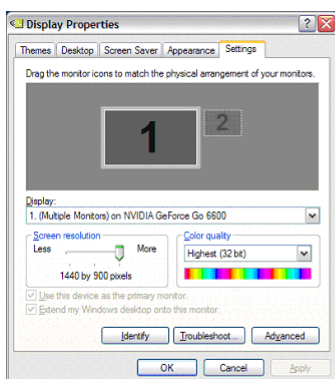
Settings Tab

3   On the **Settings** tab, click and drag the **Screen resolution**
     slider to the left to select a lower screen resolution.

TECHNICAL NOTE: Most televisions use or support an 800 x 600 standard resolution.

4 Click **Apply**, then click **OK** to close the Display Properties window.

The screen is now displayed correctly on your TV.

For more information, see "Directing the display output when you turn on the computer" on page 78.

Connecting an external monitor or projector

You can easily attach an external monitor or projector to your computer if you need a larger screen or to display anything on your computer screen. To do this:

1 Connect the monitor's video cable to the RGB (monitor) port on the back of the computer.

2 Connect the device's power cable to a live electrical outlet.

3 Turn on the external device.

4 While holding down Fn, press F5 repeatedly, pausing between each press, until you get the desired setting. See the immediately following section on directing the display output for more information.

Directing the display output when you turn on the computer

Once you connect an external display device, you can choose to use the internal display only, the external device only, or both simultaneously. The quickest way to change the display output settings is to use the display hot key (Fn + F5):

1 Press Fn and F5 simultaneously.

2 While holding down Fn, press F5 repeatedly, pausing between each press, until the setting you want takes effect.

This hot key cycles through the settings in the following order:

❖ Built-in display only

❖ Built-in display and external monitor simultaneously

❖ External monitor only

❖ Built-in display and TV (or other external video device) simultaneously

❖ TV (or other external video device) only

3 Release the Fn key.

TECHNICAL NOTE: You can also change these settings using the Display Properties Box.

Set the option for the video controller by clicking Start, then Control Panel, and Display. Choose the Settings tab, click the Advanced button, select Display Device, select the applicable Monitor type, and click Apply or OK.

Adjusting the quality of the external display

To obtain the best picture quality from your television (or other video display device), you may need to adjust the video

settings. See the video device documentation for additional configuration steps.

TECHNICAL NOTE: To use one of the simultaneous modes, you must set the resolution of the internal display panel to match the resolution of the external display device. The external display device must support a resolution of 640 X 480 or higher.

Connecting External AV Input Devices

Your computer provides ports for connecting the following AV input devices:

❖ A Set-top box or standard television antenna via the coaxial Antenna In port

❖ VCR/DVD player and game console devices via the S-video In port or the Composite In port

Connecting a Set-top box or standard TV antenna

You can watch standard television by connecting a Set-top box or antenna to the Antenna In port on your computer. To do this:

1 Connect the television Set-top box or antenna to the coaxial adapter cable.

2 Connect the coaxial adapter cable to the coaxial Antenna In port on the back of your computer.

3 Turn on your computer.

Connecting to the S-video In port

You can connect an external input device such as a VCR/
DVD player or game console to the S-video In port on the
back of your computer.

NOTE   S-video cables are not included with your computer. To
connect a device to the S-video In port, you will need to
purchase an S-video cable.

To connect the device:

1 Connect one end of the video cable to the external video device.

Refer to the documentation provided with the device for the location of its Video Out port.

2 Connect the other end of the video cable to the S-video In port on the back of the computer.

3 Turn on the external video device.

Connecting to the Composite In port

The Composite In port provides another way to connect a VCR/DVD player or game console to your computer. To do this:

1 Connect the external device's video cable to the Composite In port on the back of the computer.

2 Connect the device's power cable to a live electrical outlet.

3 Turn on your computer.

4 Turn on the external device.

Powering off the computer

It is a good idea to power off your computer when you are not using it for a while.

If you are using the computer for the first time, leave the computer plugged into a power source (even though the computer is off) to fully charge the main battery. When the battery light glows blue, the battery is fully charged.

When you power off the computer, you have three options to choose from: Turn Off (or Shut down), Hibernate, and Stand By. Each option has its advantages.

❖ Use the Turn Off command if you are using the Windows® XP Media Center Edition operating system.

❖ If you have work in progress and are not connected to a network, use the Windows Stand By or Hibernate commands to save your system settings to memory. The next time you turn on the computer, you automatically return to where you left off.

CAUTION   Never turn off the computer while any drive is in use. Doing so may damage the media in use and result in loss of data. For more information, see "Powering down the computer" on page 108.

Caring for your computer

This section gives tips on cleaning and moving your computer. For information about taking care of your computer's battery, see "Running the computer on battery power" on page 118.

Cleaning the computer

CAUTION   Keep liquids, including cleaning fluid, out of the computer's keyboard, speaker, and other openings. Never spray cleaner directly onto the computer. Never use harsh or caustic chemical products to clean the computer.

To keep your computer clean, gently wipe the display panel and exterior case with a lightly dampened cloth. Ask your Toshiba dealer for suggestions for appropriate cleaning products.

Closing the display panel

When you are finished using the computer, power off and close the display panel to keep dust and dirt out of the computer.

If you close the computer while it is still on, one of these actions will occur:

❖ If you have the LCD power-saver feature set, the LCD panel will automatically turn off until you open it again.

❖ If you have the audible warning set, the computer beeps to notify you that it is still on. See "Accessing TOSHIBA HW Setup" on page 245.

❖ If you have an action feature set, the computer performs that action (Nothing, Stand By, Hibernate, or Turn Off). For more information, see "Power management" on page 119.

Moving the computer

Before moving your computer, even across the room, make sure all disk activity has ended (the drive indicator light stops glowing) and all external peripheral cables are disconnected.

CAUTION Do not pick up the computer by its display panel or by the back (where the ports are located).

Although your notebook computer is built to withstand reasonable shock and vibration, transport it in a carrying case for long trips. You can purchase a carrying case from your Toshiba dealer, through the accessories information packaged with your system, or visit accessories.toshiba.com.

Using a computer lock

For your own peace of mind, you may want to secure your computer to a heavy object such as your desk. The easiest way to do this is to purchase an optional PORT-Noteworthy® Computer Lock Cable.
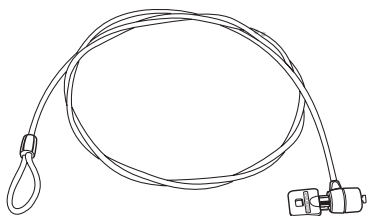
Sample PORT-Noteworthy® Computer Lock Cable

To secure the computer:

1   Loop the cable through or around some part of a heavy object.

Make sure there is no way for a potential thief to slip the cable off the object.

2   Pass the locking end through the loop.

3   Insert the cable's locking end into the security lock slot on the computer, then give the key a quarter turn and remove it.

The computer is now securely locked.
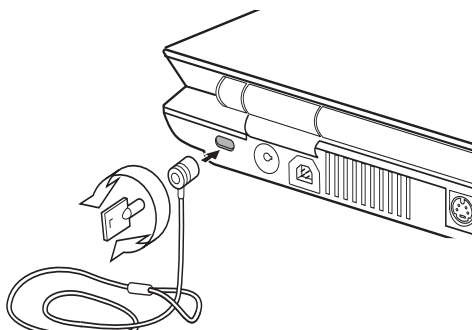
Sample locking the computer

Chapter 2

Learning the Basics

This chapter gives some computing tips and provides important information about basic features.

Computing tips

❖ Save your work frequently.

Your work temporarily stays in the computer's memory until you save it to the hard disk. You will lose all unsaved work, if, for example, a system error occurs and you must restart your computer, or your battery runs out of charge while you are working. Your computer can be configured to warn you when the battery is running low. See "Setting battery alarms" on page 125.

HINT: Some programs have an automatic save feature that you can activate. This feature saves your file to the hard disk at preset intervals. See your software documentation for details.

❖ Back up your files to disks (or other removable media) on a regular basis. Label the backup copies clearly and store them in a safe place.

If your hard disk suddenly fails, you may lose all the data on it unless you have a separate backup copy.

❖ Use Error-checking and Disk Defragmenter regularly to conserve disk space and improve performance.

❖ Scan all new files for viruses.

This precaution is especially important for files you receive via diskette, email, or download from the Internet.

❖ Take frequent breaks to avoid repetitive-motion injuries and eyestrain.

❖ Do not turn off the computer if a drive indicator light indicates a drive is active.

Turning off the computer while it is reading from or writing to a disk may damage the disk, the drive, or both.

❖ Before turning off the computer, use the Turn off computer command or Stand By command. See "Powering down the computer" on page 108 to learn more about Stand By.

CAUTION The operating system records information, such as your desktop setup, during its shut down procedure. If you do not let the operating system shut down normally, details such as new icon positions may be lost.

Using the keyboard

Your computer's keyboard contains character keys, control keys, function keys, and special Windows® keys, providing all the functionality of a full-size keyboard.
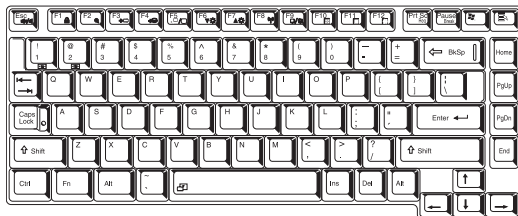
Sample keyboard

Character keys

Typing with the character keys is very much like typing on a typewriter, except that:

❖   The space bar creates a space character instead of just passing over an area of the page.

❖   The lowercase letter l (el) and the number 1 are not interchangeable.

❖   The uppercase letter O and the number 0 are not interchangeable.

Making your keyboard emulate a full-size keyboard

Although your computer's keyboard layout is compatible with a standard full-size keyboard, it has fewer keys.

A standard full-size keyboard has two Enter, Ctrl, and Alt keys; editing keys; cursor positioning keys; and a numeric keypad. Pressing the Fn key simultaneously in combination with one

of the specially marked keys allows you to emulate a full-size keyboard.

NOTE	The emulation Fn key and the Wake up on Keyboard while in Stand By are only functional when using the internal keyboard; they are not supported when using a USB keyboard.

Your computer's keyboard has only one Enter and one Ctrl key. Most of the time, this does not matter. However, some programs assign separate functions to the right and left Ctrl and Alt keys, or to the regular and numeric pad Enter keys on the full-sized keyboard. Using the Fn key, you can simulate these separate keys, as follows:

❖ Press Fn and Ctrl simultaneously to simulate the Ctrl key on the right side of the enhanced keyboard.

❖ Press Fn and Enter simultaneously to simulate the Enter key on the numeric pad of the enhanced keyboard.

Ctrl, Fn, and Alt keys

Sample Ctrl, Fn, and Alt keys

The Ctrl, Fn, and Alt keys do different things depending on the program you are using. For more information, see your program documentation.

Function keys

The function keys (not to be confused with the Fn key) are the 12 keys at the top of the keyboard.

Sample function keys

F1 through F12 are called function keys because they execute programmed functions when pressed. Used in combination with the Fn key, function keys marked with icons execute specific functions on the computer. For example, Fn+F9 turns off the TouchPad. For more information, see "Fn-esse®" on page 233 or "Hot Keys" on page 312.

Windows® special keys

Start key

Application key

Sample Windows® special keys

Your computer's keyboard has two keys that have special functions in Windows:

❖ **Start key**—Opens the Start menu

❖ **Application key**—Has the same function as the secondary mouse button

Overlay keys
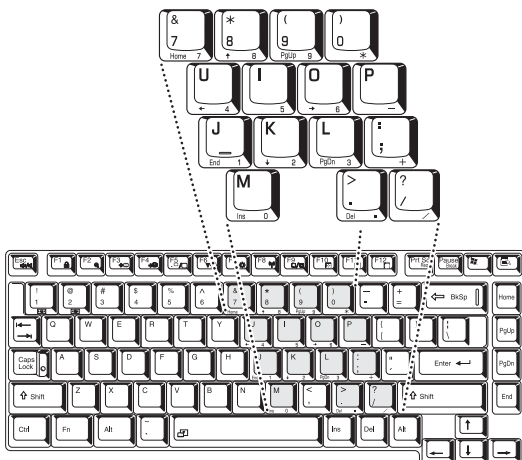
Sample numeric and cursor control overlay

The keys with gray numbers and symbols on the front of them form the numeric and cursor overlay. This overlay lets you enter numeric data or control the cursor as you would using the 10-key keypad on a desktop computer's keyboard.

Using the overlay to type numeric data

To turn the numeric overlay on, press Fn and F11 simultaneously. The numeric mode light on the keyboard indicator panel glows when the numeric overlay is on.

You can still use the overlay keys to type alphabetic characters while the numeric overlay is on. To do so:

❖ For lowercase letters, hold down Fn while you type the letters

❖ For uppercase letters, hold down both Fn and Shift while you type the letters

To use the cursor control overlay when the numeric overlay is on, press and hold down Shift while you use the cursor control keys. To return to the numeric overlay, release Shift.

To turn off the numeric keypad overlay, hold down the Fn key and press F11 again. The numeric mode light on the keyboard indicator panel goes out.

Using the overlay for cursor control

To turn the cursor control overlay on, press Fn and F10 simultaneously. The cursor control mode light on the keyboard indicator panel glows when the cursor control overlay is on.

To type alphabetic characters while the overlay is on:

❖ For lowercase letters, hold down Fn while you type the letters

❖ For uppercase letters, hold down both Fn and Shift while you type the letters

To use the numeric keypad overlay when the cursor control overlay is on, hold down Shift while you use the numeric overlay keys. To return to the cursor control overlay, release Shift.

To turn off the cursor control overlay, hold down the Fn key and press F10 again. The cursor control mode light on the keyboard indicator panel goes out.

Starting a program

The easiest way to start a program is to double-click the name of the file that contains the information you want to work on. To find the file, use My Computer or Windows® Explorer.

If you prefer to open the program first, you have four options. You can:

❖ Double-click the icon for the program on your desktop

❖ Use the Start menu

❖ Use Windows Explorer to locate the program file

❖ Use the Run dialog box

The next three sections explain how to start a program from the Start menu, Explorer, and the Run dialog box.

Starting a program from the Start menu

When you install a program, the operating system usually puts an icon in the All Programs menu. To start a program that has an icon in the All Programs menu, follow these steps which use the Windows® WordPad program as an example:

1 Click **Start**, then point to **All Programs**.

The Windows® XP operating system displays the All Programs menu, which lists programs and program groups. If your program is listed, go to step 3, otherwise, continue with step 2.

2 Point to the program group, in this example, **Accessories**.

The Accessories menu displays.

3 Click the program, in this example, **WordPad**.

WordPad opens.

To close the program, click the **Close** button in the upper-right corner of the program's window.

Starting a program from Windows® Explorer

If a program is not listed in the Programs menu, you can start it from Windows® Explorer. Windows® Explorer gives you a view of your computer's contents as a hierarchy or "tree." You can easily see the content of each drive and folder on your computer. To use this method, you should know the file name and location of the program's executable file (this file ends with .exe).

This example opens WordPad using its file name, *wordpad.exe*.

1 Click **Start**, then point to **All Programs**.

2 Click **Accessories**.

3 Click **Windows Explorer**.

4 In the left pane of the window, click **My Computer** to expand the window.

5 In the left pane of the window, click **Local Disk (C:)**.

6 In the left pane of the window, click the folder containing the program, in this case **Program Files**.

Windows® Explorer shows the contents of the Program Files folder on the right side of the window. The left side of the window shows all the folders contained within the Program Files folder.

7 In the left pane of the window, click **Windows NT**.

8   In the left pane of the window, click **Accessories**.

Windows® Explorer shows the contents of the **Accessories** folder on the right side of the window.

9   In the right pane of the window, double-click **WordPad.exe**.

WordPad opens.

To close the program, click the **Close** button in the upper-right corner of the program's window.

Starting a program from the Run dialog box

This example uses the Run command to start WordPad.exe:

1   Click **Start**, then click **Run**.

The Run dialog box appears.
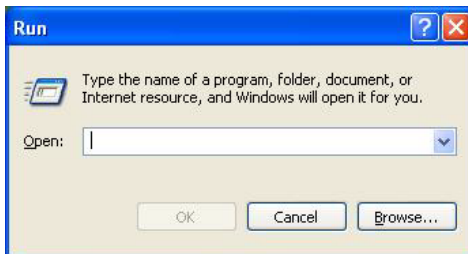
Sample Run dialog box

2   In the Run dialog box:

❖   If the program is in the Windows® NT folder, type just the program name.

❖   If you know the program's location, type the full file path.

3   Click **OK**.

If you do not know the program's location, you can search for it by returning to the **Start** menu and clicking **Search**. Follow the instructions on the Search screen.

HINT: To run the same program again, click the arrow to the right of the text box and select the command line from the drop-down list.

Saving your work

Before you turn off the computer, save your work to the hard disk drive.

CAUTION   Always save your data even when you are using the Stand By command. If your battery fully discharges, your information will be lost. Your computer can be configured to warn you when the battery is running low, see "Setting battery alarms" on page 125.

Many programs offer a feature that saves documents at regular intervals, such as every 15 minutes. Check your programs' documentation to see whether they have an automatic save feature.

To save:

❖ A file you are updating, open the program's **File** menu and click **Save**

❖ A new file, choose **Save As** from the **File** menu, type a name for the file, and click **OK**

HINT: To make another copy of the file you are currently working with, choose **Save As** from the **File** menu and give the new file a different name.
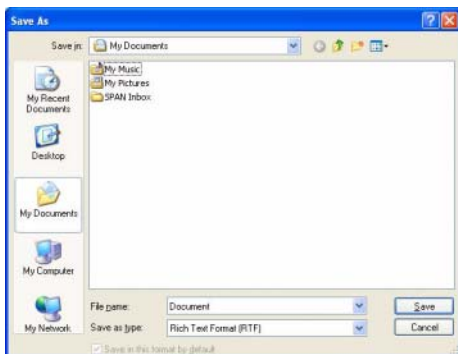
Sample Save As dialog box

The Windows® XP operating system supports file names of up to 255 characters; the names can include spaces. Some applications still require file names limited to eight characters.

File names

If you plan to share your files with a computer using a pre-Windows® 95 version of the Windows® operating system, the file name must be no more than eight characters long. Typically the file name also has an extension, consisting of a period and up to three additional characters.

You may use all the letters and numbers on the keyboard plus these characters: _ ^ $ ~ ! # % & { } ( ) @ and '. File names are not case-sensitive and must not contain spaces.

Using a file extension

Most programs assign an extension to the file name that identifies the file as being created in the program with a particular format. For example, Microsoft® Word saves files with a .doc extension. Any file name with an extension of ".doc" is assumed to be a Microsoft® Word file. Creating your own extension is usually unwise, since the program is unlikely to recognize an unusual extension and may refuse to handle your file correctly.

HINT: By default, the Windows® XP operating system does not show file extensions. For information on showing or hiding file extensions, see your Windows® XP online help.

Printing your work

Verify that the Windows® XP operating system is set up for your printer as described in .

TECHNICAL NOTE: You only need to set up the printer the first time you connect it. If you use more than one printer or are changing printers, you need to set up the operating system to run with the additional printer(s).

To print a file:

1 If your printer is not on, turn it on now.

2 Open the **File** menu of your Windows® program and click **Print**.

The program displays a Print dialog box.
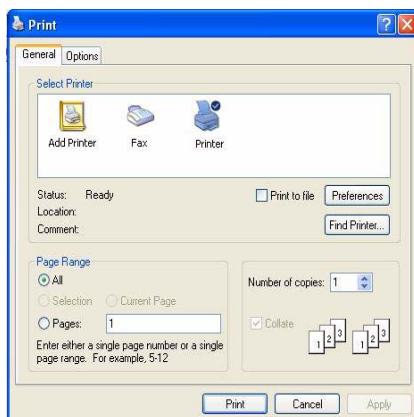
Sample Print dialog box

3 Specify the print parameters. For example, the range of pages and number of copies to print.

4 Click **Print**.

Backing up your files

Backing up your files means copying individual files to media, such as a writable CD, or copying entire sections of your hard disk to another device, such as a tape drive.

For those systems with a writable CD-ROM drive or DVD-ROM multi-function drive, you may back up your files to a writable disc as follows:

1 Insert the media into the appropriate drive.

2 Click **Start**, then click **My Computer**.

3 Click the drive that contains the file you want to copy.

4 Double-click the folder that contains the file, then click the file you want to copy.

HINT: You can use the Ctrl or Shift keys to select more than one file.

5 Click **File**, then click **Send To** and select the drive from the list.

When you have backed up your files, verify that the files have been written to the media.

Restoring your work

To restore information from your backup media to your hard disk, use the Restore page in the backup program. Look in the online Help for your operating system for information on restoring files.

TECHNICAL NOTE: When restoring files, the backup program prompts you if you try to overwrite a file that already exists on the hard disk. Make sure the backup version is the one you want before overwriting the existing file.

Using the DVD-ROM or multi-function drive

Optical storage has become the preferred medium for software, music, and video. Digital versatile discs (DVDs) provide a significant increase in data storage and support features that are not available on any other video platform. These features include wide-screen movies, multiple language tracks, digital surround sound, multiple camera angles, and interactive menus.

For these reasons, your computer may come with a DVD-ROM drive or multi-function drive.

TECHNICAL NOTE: Your DVD-ROM or multi-function drive is set to play region 1 (North America) DVD-ROMs. If you play a DVD disc from another region, the drive automatically changes to play in the format of the other region. The drive allows you to change regions four times. On the fourth change, the region is "locked in." That is, the drive will only play DVDs from the last region. Note that changing from region 1 to region 2 and back to region 1 is counted as two changes.

NOTE For optimum CD and DVD performance, it is recommended that you play CDs and DVDs while running the computer on AC power. In addition, your computer's Power Saver utility can be used to select a power level setting for DVD playback.

You use CD-ROMs and DVD-ROMs to load and run software, and to access reference material such as catalogs, as well as listen to music. A special feature allows you to play audio CDs and movie DVDs even when the computer is turned off. For more information, see "Using QosmioPlayer" on page 159.

Drive components and control buttons

The DVD-ROM or multi-function drive is located on the front of the computer. The Media control buttons are located above the keyboard and can be accessed when the display panel is open.

CAUTION   Use only standard (12 cm) CD or DVD Discs. Any other size or shape disc cannot be removed from this slot and may damage the system.

Media control buttons

The control buttons above the computer keyboard let you play audio CDs when the computer is on. You can also use them to play CDs and DVDs when the computer is off using the QosmioPlayer application. For more information on playing CDs and DVDs when the computer is powered off, see .
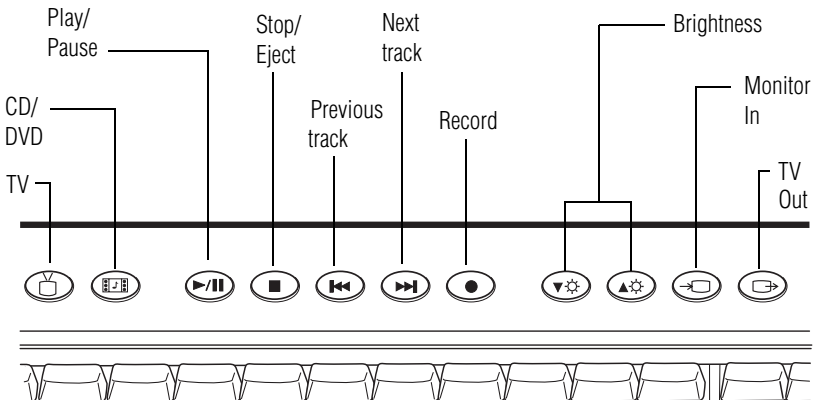
Sample Media control buttons above the computer keyboard

The **TV** button:

❖ Launches Windows Media Center and activates the TV interface, when the computer is powered on and Windows is running. For more information, see "Watching Television Programs" on page 192.

❖ Launches the QosmioPlayer if the computer is not powered on.

The **CD/DVD** button:

❖ Launches Windows Media Center and plays the CD or DVD, if one is inserted into the drive, when the computer is powered on and Windows is running. For more information, see "Listening to Music" on page 204.

❖ Launches the QosmioPlayer if the computer is not powered on.

The **Play/pause** button starts playing the disc or makes it pause if currently playing.

The **Stop/eject** button stops a disc that is currently playing.

The **Previous track** button returns to the preceding track on the disc.

The **Next track** button skips to the following track on the disc.

The **Record** button records television programs which are currently being viewed.

The **Brightness** buttons adjust the screen brightness. These buttons do not function when QosmioPlayer is running.

The **Monitor In** button is pressed to establish the connection with an external output video device.

The **TV Out** button directs the display to an external display device. This button does not function when QosmioPlayer is running.

Inserting a disc

CAUTION Before playing an audio CD, turn the volume down. Playing the compact disc at maximum volume could damage your ears. To turn the volume down, use the Volume Control switch or access the Volume Control program (click Start, All Programs, Accessories, Entertainment, Volume Control).

1 Hold the disc by its edges and check that it is clean and free of dust.

CAUTION Handle discs carefully. Avoid touching the surface of the disc. Grasp it by its center hole and edge. If you handle the disc incorrectly, you could lose data.

If the disc is dusty, clean it as described in "Caring for CD or DVD Discs" on page 107.

2 With the label facing up, carefully place the disc partially into the slot until it stops or starts pulling the disc in.
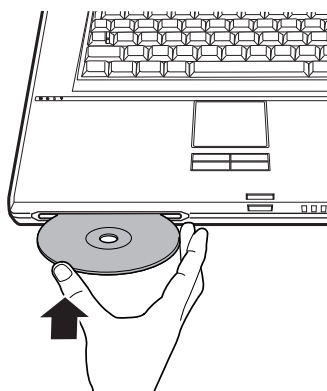
Sample of positioning the disc in the drive

Playing an audio CD

CAUTION Before playing an audio CD, turn the volume down. Playing the compact disc at maximum volume could damage your ears. To turn the volume down, use the Volume Control switch or access the Volume Control program (click Start, All Programs, Accessories, Entertainment, Volume Control).

If the computer is off, you can press the CD/DVD button to play the CD using QosmioPlayer (refer to "Using QosmioPlayer" on page 159) for more information.

If the computer is turned on, Windows Media® Player opens and the CD begins to play. You can use the Windows Media Player program to control the CD.

To access the Windows Media Player, you can open it through the Start menu or activate it from the taskbar.

NOTE When using Windows Media Player, your system may not be able to activate Stand By or Hibernation modes. To prevent this from occurring, close Windows Media Player before you select Stand By or Hibernation mode.
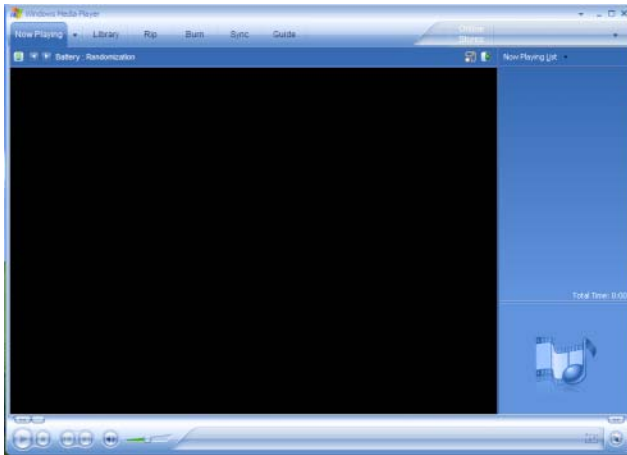
Sample Windows Media® Player screen

The CD Player control panel works much like an ordinary compact disc player:

❖ To play the CD or to pause, click the **Play/pause** button on the CD Player control panel.

❖ To stop the CD, click the **Stop** button.

Playing CDs using Auto-Run

If you insert a CD into the DVD-ROM/multi-function drive and the Auto-Run feature does not automatically start your disk, try launching the CD manually. To do this, follow these steps:

1 Open the **Start** menu and select **My Computer**.

2 Double-click the DVD-ROM/multi-function drive icon.

The drive runs the CD.

If your disk does not run using this method, try using an application that is associated with the media on the disk. For example, if it is a music CD, open Windows Media Player

and point it to play the CD. For other types of media, use the associated software to open the files on the disk.

Creating a CD or DVD

Depending on your computer's configuration, your computer may come with a multi-function drive that allows you to:

❖ Play pre-recorded DVDs

❖ Play pre-recorded CDs

❖ Read and write files (depending on your system configuration) and music files to CD-Recordable (CD-R) and CD-Rewritable (CD-RW) discs; and read and write DVD±R/±RW, and DVD RAM.

NOTE   Copy protection technology included in certain media may prevent or limit recording or viewing of the media.

For details on how to use the software, please refer to the respective Online Help menus.

Viewing the contents of a CD or DVD

CDs and DVDs contain files just like the hard disk. CDs are often used to install software or store files that require lots of space, such as photographs and large presentation files. You can use Explorer or My Computer to view the contents of any CD or DVD.

Removing a disc

CAUTION	Never press the eject button or turn off the computer while the drive-in-use light is glowing. Doing so could damage the disk or the drive.

NOTE	The computer must be powered on to eject a disc.

1 Locate and press the eject button.

The disc partially ejects from the slot.

2 Grasp the disc and remove it from the computer, then place the disc in its protective cover.

Caring for CD or DVD Discs

❖ Store your discs in their original containers to protect them from scratches and keep them clean.

❖ Do not bend a disc or place heavy objects on top of it.

❖ Do not apply a label to or otherwise mar the surface of a disc.

❖ Hold a disc by its outside edge. Fingerprints on the surface can prevent the DVD-ROM drive or multi-function drive from reading the data properly.

❖ Do not expose discs to direct sunlight or extreme heat or cold.

❖ To clean a disc that is dirty, wipe it with a clean, dry cloth. The most efficient method to clean it is to start from the center of the disc and wipe toward the outward edge (not in a circle). If necessary, moisten the cloth with water or a neutral cleaner (not benzine or rubbing alcohol). Let the disc dry completely before inserting it in the drive.

Powering down the computer

CAUTION Pushing the power button before shutting down the Windows® operating system could cause you to lose your work. Make sure the system indicator panel's disk light and the drive-in-use light are off. If you turn off the power while a disk is being accessed, you may lose data or damage the disk and/or drive.

When you power down the computer, you have three options to choose from: Turn Off Computer (or Shut down), Stand By, and Hibernation.

TECHNICAL NOTES: Before using any of these options to power down your computer, save your files and make sure the disk activity lights are off.

If you change your mind and decide to continue working after all, wait a few seconds before turning the computer on again.

Using the Turn off command

The following procedures describe how to turn off the computer when it is running the Windows® XP Media Center Edition operating system.

If your computer is not connected to a domain server:

1 Click **Start**, select **Turn off computer**.

The Turn off computer dialog box appears.

Sample Turn off computer Windows dialog box

2   Click **Turn Off**.

The computer shuts down completely.

NOTE   Holding Shift while the Turn Off computer Windows dialog box is open, changes the Stand By button to Hibernate. For more information about setting up hibernation, refer to "Using Hibernation Mode" on page 110.

Turning off more quickly

You can also turn off the computer by pressing the power button.

To use either of these methods, you first need to turn it on in Toshiba's Power Saver utility.

1   Open the **Start** menu, click **Control Panel**, then **Performance and Maintenance**.

2   Click the **Toshiba Power Saver** icon.

3   Click on the **Setup Action** tab.

4   Select the following from the drop-down lists.

   ❖   **When I press the power button**
       Set this option to **Turn Off** to have the computer turn off when you press the power button.

5   Click **Apply**.

6   Click **OK**.
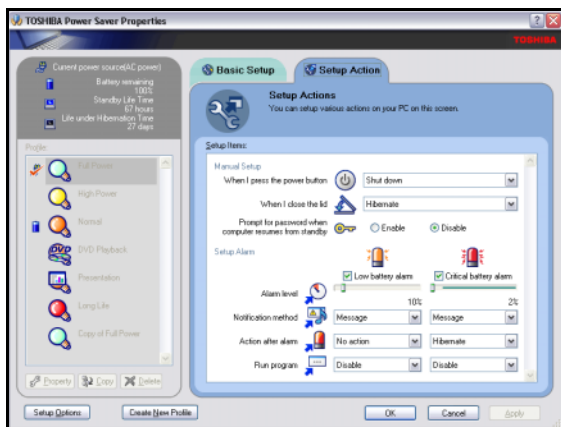
Sample Toshiba Power Saver Properties dialog box

NOTE   For more information about the Power Saver utility, see .

Starting again after Turn off

To start the computer up again, press the power button until the on/off light changes to blue.

If you turned off the computer by closing the display panel, you can start it again by opening the display panel.

Using Hibernation Mode

Hibernation mode shuts the computer down completely, but it first saves the current mode of the computer to the hard disk. Since Hibernation mode does not require power to maintain the saved information, the system settings are retained indefinitely. Restoring information from the hard disk takes longer than restoring it from memory. When you start up

again, the computer runs a self-test, loads the operating system, and then returns to the mode in which you left it.

Factors to consider when choosing Hibernation:

❖ While in Hibernation mode, the computer uses no battery power.

❖ Because the mode of the system is held on the hard disk, no data is lost if the main battery discharges.

❖ When starting up again, Hibernation uses less time and battery power than does Turn off computer.

❖ Resuming from Hibernation uses a little more time and power to start up than restarting from Stand By, because information is being retrieved from the hard disk rather than from memory.

❖ When starting up again, the computer returns to the mode in which you left it, including all open programs and files you were previously using.

Going into Hibernation mode

If you are not connected to a Windows® network server (domain server), power off the computer using the Hibernation command as follows:

1 Click **Start**, **Turn off computer**.

The Turn off computer window appears.

2 Hold down the shift key and click **Hibernate** ("Hibernate" only appears while the Shift key is held down).
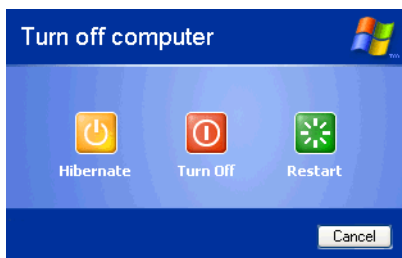
Sample Turn off computer window with Shift key held down to show Hibernate option

The computer saves the state of the system, including all open programs and files, to the hard disk and then powers down completely.

Configuring your computer for Hibernation

To set up your Hibernation options:

1   Click **Start**, **Control Panel**.

The Control Panel window appears.

2   Click **Performance and Maintenance**.

3   Double-click the **Toshiba Power Saver** icon.

The TOSHIBA Power Saver Properties window appears.

4   Click to select a profile.

5   Click the **Setup Action** tab.

6   Select **Hibernate** for the options you want.

❖   **When I press the power button**

Set this option to Hibernate so that the computer will go into Hibernation mode when you press the power button.

❖ **When I close the lid**

Set this option to Hibernate so that the computer will go into Hibernation mode when you close the display panel.

7 Click **Apply**.

8 Click **OK** to close the TOSHIBA Power Saver Properties window, then close the Control Panel.

Once the computer is configured, place the computer into Hibernation mode by either pressing the power button or closing the display panel, depending on the hibernation options selected.

Starting again from Hibernation mode

Use these instructions to restart the computer when you enter Stand By mode by closing the display panel:

❖ AC power. Open the display panel.

❖ Battery power. Open the display panel and press the power button until the on-off light changes to blue.

The computer returns to the screen you were previously using.

Using Stand By Mode

The Stand By command puts the computer into a power-saving mode. Stand By stores the current state of the computer in memory so that, when you power on the computer, you can continue working from where you left off.

Factors to consider when choosing Stand By:

❖ While in Stand By mode, the computer uses some battery power. If your computer is left in Stand By mode for an extended period, your computer could lose data.

❖ Restarting from Stand By uses less time and battery power than restarting from Turn Off or Hibernation mode.

❖ When starting up again, the computer returns to the state in which you left it, and opens all the programs and files you were using.

**CAUTION** If you power down using the Stand By command and the battery discharges fully, your unsaved information will be lost. Be sure to save your work often.

If you are not connected to a Windows® network server (domain server), power down the computer using the Stand By command as follows:

1 Click **Start**, **Turn off computer**.

The Turn off computer window appears.

Sample Turn off computer window with Stand By option

2 Click **Stand By**.

NOTE If you hold down the Shift key, Stand By becomes Hibernate in the Turn off computer dialog box. To enter hibernation mode, you must hold down the Shift key while you select Hibernate.

The computer saves the state of all open programs and files to memory, turns off the display, and goes into a low-power

mode. The on/off light blinks amber to indicate the machine is in Stand By mode.

CAUTION: If you power down using the Stand By command and the battery discharges fully, your information will be lost. Be sure to save your work often.

Going into Stand By mode more quickly

There are three other ways to put the computer into Stand By mode:

❖   By pressing the power button

❖   By closing the display panel

❖   By pressing the hot key combination Fn+F3

This section describes how to set up your Stand By options for the first two methods. For information about the hotkey combination, see "Stand By mode" on page 314.

To set up your Stand By options:

1   Click **Start**, **Control Panel.**

The Control Panel window appears.

2   Click **Performance and Maintenance**.

3   Double-click the **Toshiba Power Saver** icon.

The TOSHIBA Power Saver Properties window appears.

4   Click to select a profile.

5   Click the **Setup Action** tab.

6   Select **Stand By** for the options you want.

❖   **When I press the power button**

Set this option to Stand By so that the computer will go into Stand By mode when you press the power button.

❖ **When I close the lid**

Set this option to Stand By so that the computer will go into Stand By mode when you close the display panel.

7   Click **Apply**.

8   Click **OK** to close the TOSHIBA Power Saver Properties window, then close the Control Panel.

NOTE   For more information about the Power Saver utility, see "Power Management" on page 242.

Starting again from Stand By mode

Use these instructions to restart the computer when you enter Stand By mode by closing the display panel:

❖   AC power. Open the display panel.

❖   Battery power. Open the display panel and press the power button until the on/off light changes to blue.

The computer returns to the screen you were previously using.

Toshiba's online resources

Toshiba maintains a number of online sites to which you can connect. These sites provide information about Toshiba products, give help with technical questions, and keep you up to date with future upgrades. For more information, see "Contacting Toshiba" on page 308.

Chapter 3

Mobile Computing

This chapter covers all aspects of using your computer while traveling.

Toshiba's energy-saver design

Your computer enters a low-power Stand By mode when it is not being used, thereby conserving energy and saving money in the process. It has a number of other features that enhance its energy efficiency.

Many of these energy-saving features have been set by Toshiba. We recommend you leave these features active, allowing your computer to operate at its maximum energy efficiency, so that you can use it for longer periods of time while traveling.

Running the computer on battery power

The computer contains a removable Lithium-Ion (Li-Ion) high-capacity battery that provides power when you are away from an AC outlet. You can recharge it many times.

Battery Notice

Battery life may vary, depending on applications, power management settings, and features utilized. Recharge time varies depending on usage. The battery may not charge while the computer is consuming full power.

After a period of time, the battery will lose its ability to perform at maximum capacity and will need to be replaced. This is normal for all batteries. To purchase a new battery pack, see your accessories information that shipped with your computer, or visit the Toshiba Web site at accessories.toshiba.com. Refer to this site often to stay current on the most recent software and hardware options for your computer, and for other product information.

To ensure that the battery maintains its maximum capacity, operate the computer on battery power at least once a month until the battery is fully discharged. Please see "Maximizing battery life" on page 133 for procedures. If the computer is continuously operated on AC power, either through an AC adapter or a docking station (if applicable to your system), for an extended period (more than a month), the battery may fail to retain a charge. This may shorten the life of the battery, and the battery light may not indicate a low-battery condition.

NOTE   For optimum DVD performance, Toshiba recommends that you play DVDs while running on AC power rather than on battery power.

The QosmioPlayer is not a Windows-based application.

Battery life is less than when using similar applications in the Windows Operating System.

NOTE   Over a period of time, and depending on the usage of the computer, the brightness of the LCD Screen will deteriorate. This is an intrinsic characteristic of LCD technology.

The screen may be dimmer when the computer is operated on battery power, and you may not be able to increase the brightness of the screen until you plug the computer into AC power again.

NOTE   When playing DVDs using QosmioPlayer, the computer must either be off or in Hibernation mode for QosmioPlayer to start. If the computer is powered on or in Standby mode, turn off the computer before trying to start QosmioPlayer.

Power management

Your computer ships with the power management options preset to a configuration that will provide the most stable operating environment and optimum system performance for both AC power and battery modes.

CAUTION Changes to these settings may result in system performance or stability issues. Users who are not completely familiar with the power management component of the system should use the preset configuration. For assistance with setup changes, contact Toshiba's Global Support Centre.

Using additional batteries

If you spend a lot of time traveling and need to work for many hours without an AC power source, you may want to carry additional charged batteries with you. You can then replace a discharged battery and continue working.

Charging the batteries

NOTE Battery charge time may vary depending on the applications, power management settings, and features used.

The battery needs to be charged before you can use it to power the computer.

CAUTION Never leave batteries in the battery charger for more than a week at a time. Doing so may reduce the potential charge of the battery.

Use only battery chargers designed to work with your notebook computer. You can order a Toshiba battery charger from Toshiba's Web site at accessories.toshiba.com.

Charging the main battery

To charge the main battery while it is in your computer, plug the computer into a live electrical outlet. The battery charges whether the computer is on or off.

TECHNICAL NOTE: When your computer is using all of the power provided by the AC Adapter to run applications, features, and devices, the recharging of the battery cannot occur. Your computer's Power Saver utility can be used to select a power level setting that reduces the power required for system operation and allows the battery to recharge.

The main battery light (⬜) glows amber while the battery is being charged, and glows blue when it is fully charged.

The battery may not start charging immediately under the following conditions:

❖ The battery is extremely hot or cold.

   To ensure that the battery charges to its full capacity, wait until it reaches room temperature.

❖ The battery is almost completely discharged.

   Leave the power connected and the battery should begin charging after a few minutes.

Charging the RTC battery

Your computer has an internal real-time clock (RTC) battery. The RTC battery powers the System Time Clock and BIOS memory used to store your computer's configuration settings. When fully charged, it maintains this information for up to a month when the computer is powered off.

The RTC battery may have become completely discharged while your computer was shipped, resulting in the following error message during startup:

BAD RTC BATTERY

BAD CHECKSUM (CMOS)

CHECK SYSTEM

NOTE The above error message may vary by computer model.

The RTC battery does not charge while the computer is turned off even when the AC adapter is charging the computer.

The RTC battery charges when the computer is powered on.

If the RTC battery is low, the real-time clock and calendar may display the incorrect time and date, or stop working.

To recharge the RTC battery, plug the computer into a live electrical outlet and leave the computer powered on for 24 hours.

NOTE It is seldom necessary to charge the RTC battery because it charges while the computer is on. If the RTC battery is low, the real-time clock and calendar may display the incorrect time and date or stop working.

When Hibernation mode is enabled and the RTC battery is completely discharged, a warning prompts you to reset the real-time clock.

The computer can be used while the RTC battery is being charged, although the charging status of the RTC battery cannot be monitored.

Monitoring battery power

The computer's main battery light gives you an indication of the main battery's current charge:

❖ Blue means the battery is fully charged.

❖ Amber means the battery is charging (AC Adapter connected).

❖ Off (no illumination) indicates one of the following conditions: the battery is dead, the battery is not charging, the battery is not fully charged, or the AC adapter is not plugged in to the computer or AC outlet.

NOTE Battery life and charge time may vary, depending upon power management settings, applications and features used.

❖ Flashing amber indicates that the computer is using battery power, and the battery's charge is running low.

HINT: Be careful not to confuse the battery light (▭) with the on/off light (⏻). When the on/off light flashes amber, it indicates that the system is suspended (using the operating system's Stand By command).

Determining remaining battery power

NOTE Wait at least 16 seconds after turning on the computer before trying to monitor the remaining battery power. The computer needs this time to check the battery's remaining capacity and perform its calculations.

1 Open the **Start** menu, click **Control Panel**, then **Performance and Maintenance**.

2 Click the **Toshiba Power Saver** icon.

The current power source and battery power remaining section displays the current charge state of the battery. The value displays as a percentage of remaining battery charge.
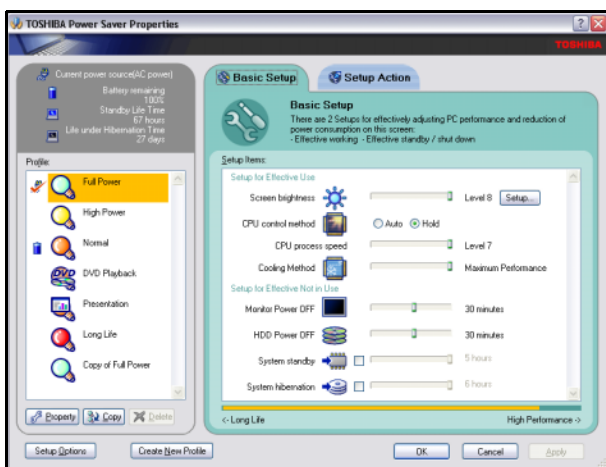
Sample Toshiba Power Saver Properties Dialog Box

The remaining battery charge is indicated on the top-left side of the dialog box.

With repeated discharges and recharges, the battery's capacity gradually decreases. A frequently used older battery does not power the computer for as long as a new battery, even when both are fully charged.

TECHNICAL NOTE: The computer drains the battery faster at low temperatures. Check your remaining charge frequently if you are working in temperatures below 50 degrees Fahrenheit.

The computer calculates the remaining battery charge based on your current rate of power use and other factors such as the age of the battery.

What to do when the battery runs low

When the battery runs low you can:

❖ Plug the computer into an external power source and recharge the battery.

❖ Put the computer in Hibernate mode and replace the battery with a charged spare.

❖ Save your work and turn off the computer.

If you do not manage to do any of these things before the battery completely runs out of power, the computer automatically enters Hibernation mode and turns itself off. Hibernation mode keeps track of where you were so, when you turn on the power again, you can continue where you left off.

The computer stores the information on what you were doing until the battery runs out of power. If you have Hibernation mode enabled (the default), the computer copies the details of your open programs and files to the hard disk before shutting down.

Setting battery alarms

You can set two alarms. Each alarm can be set to alert you when a specified percentage of remaining battery power has been reached. You can set how the warning occurs: sound an alarm, display a message, both, or none. You can also set the

computer to enter Stand By mode or Hibernation mode or to completely power down when the alarm goes off.

To set an alarm or alarms:

1   Click **Start**, **Control Panel**.

2   Click **Performance and Maintenance**.

3   Click the **Toshiba Power Saver** icon.

    The TOSHIBA Power Saver Properties window appears.

4   Click the **Setup Action** tab and set the alarm(s), as desired.

Conserving battery power

How long a fully charged battery lasts when you are using the computer depends on a number of factors, including:

❖   How the computer is configured

❖   How much you use the display panel instead of an external monitor

❖   How much you use the hard disk and other drives

❖   Whether you use any optional devices to which the battery supplies power, such as a PC Card

❖   Where you are working—since operating time decreases at low temperatures

There are various ways in which you can conserve power and extend the operating time of your battery:

❖   Enable Stand By or Hibernation, which saves power when you turn off the computer and turn it back on again

❖   Use Toshiba's power-saving options

These power-saving options control the way in which the computer is configured. By using them, you can greatly increase the length of time you can use the computer before you need to recharge the battery.

Toshiba has combined these options into preset power usage modes or profiles.

Power profiles

You can choose from a predefined power profile or select your own combination of power management options. The following steps describe this procedure.

NOTE   If you try to use the power management feature in Windows, a message tells you to close the Microsoft power options and use the Toshiba Power Saver instead.

1   Open the **Start** menu, click **Control Panel**, then **Performance and Maintenance**.

2   Click on the **Toshiba Power Saver** icon.

3   Select an appropriate profile for your work environment or create your own custom profile.

4   For more information, see "Power Management" on page 242.

Using a hot key to set the power profile

You may use a hot key to set the power profile.

To set the power profile:

1   Press Fn and F2 simultaneously to display the power profile pop-up window.
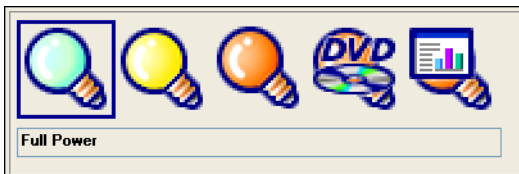
Full Power

Sample Power Profile mode pop-up window

2 While continuing to press Fn, press F2 until you select the desired power profile.

The power profile options are: Full Power, High Power, Normal, DVD Playback, Presentation, and Long Life.

3 Release the Fn key.

The pop-up window disappears. You are now in the selected mode.

For more information on setting the battery power profile, see .

Changing the main battery

When your battery power is running low, you have two options—connect the computer to an AC power source or install a charged battery.

CAUTION | When handling a battery, be careful not to drop it or short-circuit its terminals. Also, do not drop, hit, or otherwise impact the battery. Do not scratch or break the casing and do not twist or bend the battery pack.

Do not remove the battery pack while the computer is in Standby mode. Data in memory will be lost.

CAUTION | If your battery discharges fully, your information will be lost. Be sure to save your work often.

Removing the battery from the computer

CAUTION	When handling batteries, do not drop or knock them. Also, be careful not to damage the casing or short-circuit the terminals.

1   Save your work.

2   Turn off the computer.

3   Remove all cables connected to the computer.

4   Turn the computer over.

5   Slide the battery release lock to the unlocked position.
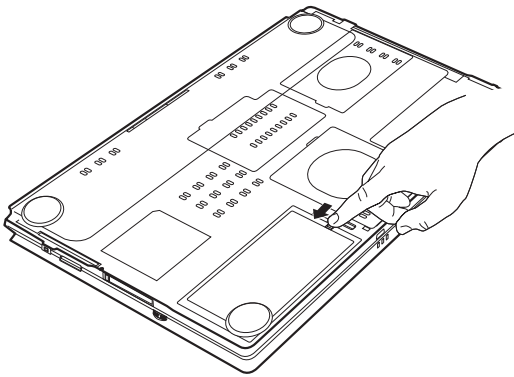
Sample sliding the battery lock to the unlocked position

6 Slide the battery release latch to the unlocked position while lifting up on the battery pack to remove the discharged battery out of the computer.
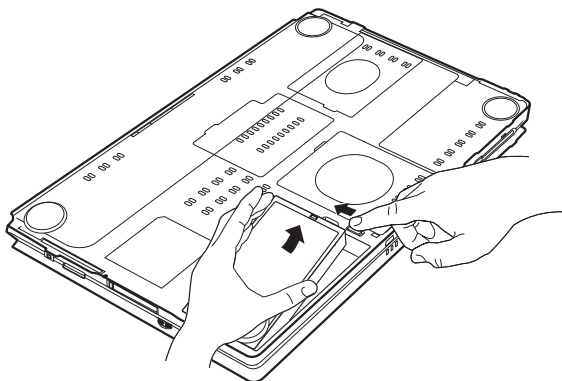
Sample removing the discharged battery pack

⚠ **WARNING** If the battery is leaking or its case is cracked, put on protective gloves to handle it, and discard it immediately following the advice in "Disposing of used batteries" on page 134.

Inserting a charged battery

Assuming you just removed the battery pack (see "Removing the battery from the computer" on page 129):

1 Place the battery module into the battery compartment.
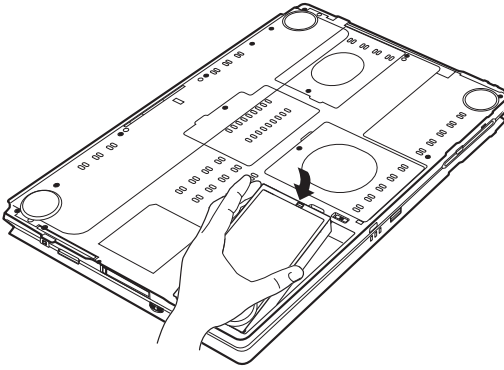
Sample inserting a new battery pack

| CAUTION | If the battery does not slide into the slot easily, move the battery release lock to the unlocked position and try again. Do not force the battery into position. |

2   Ensure the battery release latch clicks into place.

3   Slide the battery release lock to the locked position.

4   Turn the computer right side up.

5   Reconnect the cables and turn on the computer.

The battery pack has been designed so that you cannot install it with reverse polarity.

Taking care of your battery

The following sections offer tips on how to take care of your battery and prolong its life.

Battery Safety precautions

⚠ WARNING The computer's main battery is a Lithium-Ion (Li-Ion) battery, which can explode if not properly replaced, used, handled, or disposed of. Putting spent batteries in the trash is not only irresponsible, it may be illegal. Dispose of the battery as required by local ordinances or regulations.

Use only batteries recommended by Toshiba.

❖ If the battery pack produces an odor, overheats or changes color or shape while it is being used or charged, turn off the computer's power immediately and disconnect the power cord from the power socket. Carefully remove the battery pack from the computer.

❖ Do not try to disassemble a battery pack.

❖ Do not overcharge or reverse charge a battery. Overcharging will shorten its life, and reverse charging could damage it.

❖ Avoid touching the metal terminals of the battery with another metal object. Short-circuiting the battery can cause it to overheat and may cause damage to the battery or the computer.

❖ Do not incinerate a spent battery, as this could cause it to explode and release toxic materials.

❖ If a battery is leaking or damaged, replace it immediately. Use protective gloves when handling a damaged battery.

❖ To replace the main battery, use an identical battery that you can purchase through the Toshiba Web site at accessories.toshiba.com.

❖ A reverse polarity condition should be avoided with all batteries. The main battery is designed so that it cannot be installed in reverse polarity.

❖ Charge the battery only in the computer or in a battery charger designated as an approved option.

❖ When you install the battery pack, you should hear a click when it is seated properly.

❖ Do not expose the battery pack to fire. The battery pack could explode.

Maximizing battery life

To maximize the life of your battery pack:

❖ At least once a month, disconnect the computer from a power source and operate it on battery power until the battery pack fully discharges. Before doing so, follow the steps below:

1 Turn off the computer's power.

2 Disconnect the AC adapter and turn on the computer's power. If it does not turn on, go to step 4.

3 Operate the computer on battery power for five minutes. If the battery pack has at least five minutes of operating time, continue operating until the battery pack is fully discharged. If the battery light flashes or there is some other warning to indicate a low battery, go to step 4.

4 Connect the AC adapter to the computer and the power cord to a power outlet. The DC-IN or AC power-light should glow blue, and the battery should glow amber to indicate that the battery pack is being charged. If the DC-IN or AC power-light indicator does not glow, power is not being supplied. Check the connections for the AC adapter and power cord.

5 Charge the battery pack until the battery light glows blue.

❖ If you have extra battery packs, rotate their use.

❖ If you will not be using the system for an extended period, more than one month, remove the battery pack.

❖ Disconnect the AC adapter when the battery is fully charged. Overcharging makes the battery hot and shortens life.

❖ If you are not going to use the computer for more than eight hours, disconnect the AC adapter.

❖ Store spare battery packs in a cool dry place out of direct sunlight.

Disposing of used batteries

The life of a battery pack should last for years, depending on use. When the battery pack needs replacing, the main battery light flashes amber shortly after you have fully recharged the battery.

You must discard a battery if it becomes damaged.

⚠ WARNING The computer's main battery is a Lithium-Ion (Li-Ion) battery, which can explode if not properly replaced, used, handled, or disposed of. Putting spent batteries in the trash is not only irresponsible, it may be illegal. Dispose of the battery as required by local ordinances or regulations.

Use only batteries recommended by Toshiba.

After repeated use, the batteries will finally lose their ability to hold a charge and you will need to replace them. Under federal, state, and local laws, it may be illegal to dispose of old batteries by placing them in the trash.

Please be kind to our shared environment. Check with your local government authority for details regarding where to recycle old batteries or how to dispose of them properly. If you cannot find the information you need elsewhere, call Toshiba at: (800) 457-7777.

Traveling tips

The environmental precautions listed in "Selecting a place to work" on page 42, also apply while traveling.

❖ Never leave your computer on a sunny ledge or in a place where it could get wet or covered in dust.

❖ Always travel with the computer in a carrying case. Toshiba offers a choice of carrying cases for the computer. They all provide plenty of extra space for manuals, power cables, and compact discs. Contact your authorized Toshiba representative for more information.

TECHNICAL NOTE: When traveling by air, you may be required to pass your notebook through airport security equipment. The X-ray equipment will not harm your computer.

Chapter 4

Exploring Your Computer's Features

In this chapter, you will explore some of the special features of your notebook computer.

Exploring the desktop

The desktop is the launching pad for everything you can do in the Windows® XP Media Center Edition 2005 operating system. You use its features to start programs, find documents, set up system components, and perform most other computing tasks.

HINT: The illustrated examples in this guide may appear slightly different from the screens displayed by your system. The differences are not significant and do not indicate any change in the functionality of your system.

Finding your way around the desktop

Your computer's desktop includes several standard features: icons, Start button, taskbar, system tray, and background pattern.

Icons

Start button   Taskbar   System tray

Sample Windows® XP Media Center Edition operating system desktop

Icons

An icon represents a folder, file, or program that can be quickly activated by double-clicking the icon.

You can create a new desktop icon for any folder, file, or program by dragging the element's icon from its location in a window to the desktop area.

The icons initially displayed on your system desktop include:

Recycle Bin—Holds files you have deleted. You may be able to retrieve these files until you empty the Recycle Bin.

TECHNICAL NOTE: If you delete a file from a diskette, it does not go into the Recycle Bin. For more information on the Recycle Bin, see Windows online Help.

Internet Explorer—The Microsoft® browser that provides access to the Internet.

NOTE   If you place the cursor over an icon, a popup description of the file contents appears.

Your desktop may contain other icons depending on your configuration. See Windows® XP Help and Support Center for more specific information on each icon and how to use it.

Start button

You use the Start button to:

❖ Start programs

❖ Access Microsoft® Windows® XP operating system update information

❖ Open documents

❖ Adjust system settings

❖ Find files

❖ Access Windows® Help

❖ Run programs

❖ Suspend system activity and turn off the computer

Taskbar

Each time you open a program, a button associated with that program appears on the taskbar. With some programs, a button appears on the taskbar for each document or window you open. You can use these buttons to quickly switch between the programs or windows.

To make a program or window the currently active one, click the associated taskbar button.

DEFINITION: URL stands for Uniform Resource Locator, which is the address that defines the route to a file on the Web or any other Internet facility. Generically, it is known as the Web site address.

System tray

The System tray displays icons of tasks or programs that run continuously in the background. To learn more about each task, position the cursor over the icon for a few moments and a short description of the task appears.

Typical tasks in the System tray are Current time, Power usage mode, Mouse properties, and speaker volume.

To activate a specific task, double-click the appropriate System tray icon.

Setting up for communications

Your computer comes with a built-in modem that can be connected to a standard voice-grade telephone line.

The modem allows you to:

❖ Access the Internet.

❖ Communicate with your office's local area network (LAN), or a larger corporate wide area network (WAN).

For specific information about connecting to a LAN or WAN, consult your network administrator.

❖ Send a fax directly from your computer.

For more information regarding your computer's modem, visit the Toshiba Web site at pcsupport.toshiba.com.

NOTE   To stay current on the most recent software and hardware options for your computer, and for other product information, be sure to regularly check the Toshiba Web site at accessories.toshiba.com.

Determining the COM port

Your modem is connected to one of the computer's COM (communications) ports. The default setting for the modem is COM3.

The following procedure is intended to support you if you need to either upgrade your modem or reset the port to the default settings.

If you are having trouble connecting through the modem, you may need to determine the current COM port name and possibly change it.

To find out which port your modem is connected to:

1   Open the **Start** menu, and click **Control Panel**.

2   Click **Printers and Other Hardware**.

3   Click **Phone and Modem Options**.

    The **Phone and Modem Options** Properties dialog box
    displays.

4   Fill in the **Local Information** text boxes and click **OK**.

5   Click the **Modems** tab.

    Your modem should be listed next to one of the computer's
    COM ports.

6   Make a note of the COM port number.

7   To verify that the modem is set up properly, select the
    modem you wish to check, and then click **Properties** to
    bring up the dialog box with information specific to that
    modem.

8   Click the **Diagnostics** tab, and then click **Query Modem**.

    Windows XP communicates with the modem and displays
    identifying information reported by the modem. If Windows
    XP cannot communicate with the modem, it displays an error
    message. Consult the troubleshooting sections of your
    modem and Windows XP documentation.

9   Click **OK** to close the properties dialog box for that
    specific modem.

10 Click **OK** to close the Modem Properties dialog box.

11 Close the Control Panel.
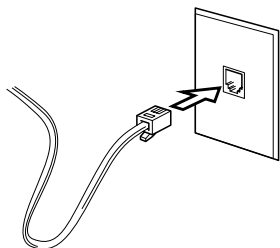
Connecting the modem to a telephone line

Before you can communicate using the modem, you need to connect it to a telephone line. Your computer's built-in modem port provides an RJ11 jack, allowing you to connect the modem to a standard voice-grade telephone line.

1   Plug one end of a telephone cable (purchased separately) into the modem port on the left side of the computer.
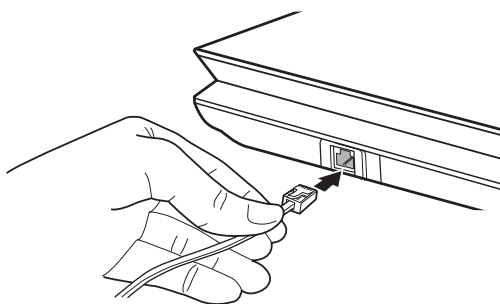
Sample connecting the telephone cable to the modem port

2   Connect the other end to an RJ-11 wall jack.

Sample connecting to a wall jack

CAUTION   The modem is designed for use with a standard analog telephone line. Do not connect the modem to a digital telephone line. A digital line will damage the modem.

Now you are ready to send a fax or use the modem to connect to an online service or the Internet.

For more information on using a modem, see "Setting up for communications" on page 140.

Connecting to a network

You can connect your computer to a network to increase its capabilities and functionality using one of its communication ports.

Accessing a network

To access a network:

❖ At the office, connect an Ethernet cable to the RJ-45 jack on your computer. For specific information about connecting to the network, consult your network administrator.

❖ While you are at home or traveling, you will need a dial-up connection. Ask your network administrator for the telephone number to access the network.

Setting up the connection

To set up an office connection, consult your network administrator for network settings and additional considerations.

To set up a dial-up connection, use the New Connection Wizard:

1 Click **Start** and point to **All Programs**.

2 Point to **Accessories**, then to **Communications**, and click **New Connection Wizard**.

3 Enter the phone number of your network connection and let the program dial the number.

The computer connects to the network.

Using the Ethernet LAN Port

When your computer starts, Windows attempts to contact a Dynamic Host Configuration Protocol (DHCP) server. If the computer is not connected to a network, it may pause a few minutes as it waits for a reply. To avoid this delay, you can reconfigure Windows to disable the LAN port.

TECHNICAL NOTE: You can also use ConfigFree to reconfigure Windows to disable the LAN port. For procedures, see "Using ConfigFree™ with your Toshiba Computer" on page 320.

To disable the LAN port:

1 Click **Start**, click **Control Panel**, then **Performance and Maintenance**.

2 Click the **System** icon, then click the **Hardware** tab, and then click the **Device Manager** button.

3 Select the appropriate network adapter.

4 Click **Actions**.

5 Select the **Properties** icon.

6 Select the **Do not use this device (disable)** option from the **Device usage** drop-down.

7 Click **OK**.

Your LAN port is now disabled.

To enable the Ethernet LAN port, repeat steps one through four. Select the **Use this device (enable)** check box, and click **OK**.

Using Wireless LAN Connectivity

NOTE   The transmission speed over the wireless LAN and the distance over which wireless LAN can reach may vary depending on surrounding electromagnetic environment, obstacles, access point design and configuration, and client design and software/hardware configurations. The actual transmission speed will be lower than the theoretical maximum speed.

Your system may come with an optional wireless LAN module. This is a technology that expands wireless communication beyond networking equipment, and can connect many different kinds of electronic devices without the need for cables.

For information on how to set up a wireless connection, refer to your wireless networking device documentation or your network administrator.

To use your wireless communication, slide the wireless antenna on/off switch to the On position.

Using the Wi-Fi® Wireless LAN Mini PCI module

Your computer may have an integrated Wi-Fi Wireless LAN Mini PCI module. It is recommended that you do not remove the module from your computer. For assistance, contact a Toshiba Wireless Authorized Service Provider.

For systems equipped with Wi-Fi, slide the wireless on/off switch to the On position.

NOTE   You can use Wi-Fi® and Bluetooth devices at the same time. To enable a wireless device, use the Fn + F8 hot key (refer to "Enabling a wireless device" on page 317 for more information).

Using the optional Bluetooth™ module

Bluetooth™ is a technology that expands wireless communication beyond networking equipment, and can connect many different kinds of electronic devices without the need for cables.

NOTE   You can use Bluetooth and Wi-Fi® devices at the same time. To enable a wireless device, use the Fn + F8 hot key (refer to "Enabling a wireless device" on page 317 for more information).

To use Bluetooth for your wireless communication, follow these steps:

1   Move the wireless antenna on/off switch to the On position.

The antenna is enabled.

2   While holding down the Function Key (Fn), press F8 until the Bluetooth icon is highlighted.

3   Release the keys.

Bluetooth is now enabled.

An overview of using the Internet

The following sections give a quick introduction to the Internet and some of its exciting features.

❖ The Internet

❖ The World Wide Web

❖ Internet Service Providers

❖ Connecting to the Internet

❖ Surfing the Internet

❖ Internet features

❖ Uploading to, and downloading files from, the Internet

The Internet

The Internet is an association of thousands of networks and millions of computers around the world connected by communications lines. They all work together to share information.

The World Wide Web

The World Wide Web (or "Web") is a subset of the Internet— a collection of interlinked documents (located on computers connected to the Internet) that work together using a specific Internet protocol called Hypertext Transfer Protocol (HTTP).

The World Wide Web offers information as text, images, audio, or video to be referenced from anywhere in the world. Special programs called Web browsers are specifically designed to work with HTTP. They make it easier to connect to a particular network address and send and receive information.

Internet Service Providers

To connect a computer directly to the Internet, many people and businesses use an Internet Service Provider (ISP). An ISP

is a company that has the equipment and the telecommunication lines necessary to maintain an Internet connection.

You can connect to the Internet by using a telephone and modem or through other higher-speed communication methods such as Digital Subscriber Lines (DSL), cable, and satellite links.

Connecting to the Internet

To connect to the Internet, you need:

❖ A modem and telephone line, or a LAN connection

❖ A Web browser

❖ An Internet Service Provider (ISP) account

The Microsoft® Web browser Internet Explorer is automatically configured on your system so that when you first start it, it guides you through signing up for a new ISP account, or assists you in setting up your computer to work with your existing ISP.

Once you have established an ISP account, you can connect to the Internet.

1 Connect your computer's modem to a telephone line. For more information on connecting a modem, see .

2 Start your Web browser. Have your modem dial the ISP's telephone number, and establish a connection with the ISP's computer.

If you are using your computer at the office, then you probably connect to the Internet through your company's network. See your network administrator about connecting to the Internet.

Surfing the Internet

Once connected to the Internet, the Web browser displays a home page, for example, your ISP's home page on the Internet or your company's Web site home page.

To visit a desired Web site, type the Web address. The Web address, or Uniform Resource Locator (URL), is a unique identifier for that computer system linked to the Internet. Web addresses can also appear within a Web page's text, and are known as links. Clicking a link automatically transfers your Web browser to that site.

You can also use a Search Engine, a Web site specifically designed to help you look for information.

Internet features

The Internet offers many types of communication tools to help you perform many tasks.

❖ Internet email

To send and receive your own email, you need a mailbox on the Web or an email address.

If you have an account with an ISP, you can probably set up an email address at the same time you sign up for the service.

❖ Internet chat rooms

A chat room is a Web site that offers a place where people with similar interests and ideas communicate in real-time, one-on-one or in groups, by typing messages which are instantly viewed by others on their computer screens.

❖ Internet news groups

A news group is similar to a chat room, but instead of using a dedicated site to converse about a specialized subject with others in real-time, it uses a Web site as a clearinghouse where all the messages are placed, like a gigantic bulletin board.

❖ Online shopping

Many Web sites offer products and services for sale.

Uploading to, and downloading files from, the Internet

Transferring files from one computer to another is termed uploading (transferring data from your computer to a site on the Web), or downloading (transferring data from a site on the Web to your computer).

There are several ways to upload or download data. It can be as simple as attaching a file or document to an email, or you can use the File Transfer Protocol (FTP) features of your Web browser to transfer large amounts of data.

Exploring audio features

You can use your computer to record sounds using an external microphone or the computer's built-in microphone which is located on the front of the computer. You can play .wav sound files or audio CDs using the built-in speakers, headphones, or external speakers.

NOTE	SRS audio enhancements are available in the Microsoft Windows operating system.

Recording sounds

You may record sounds as .wav files by using the internal microphone, or by connecting an external microphone or other sound source to the microphone jack. You may also record sounds using the computer's built-in microphone located on the front of the computer.

DEFINITION: A .wav (pronounced "wave") file is a Windows® format for storing sound.

TECHNICAL NOTE: If you record MP3 files, you can only play them on a device capable of playing MP3 files.

Using a microphone

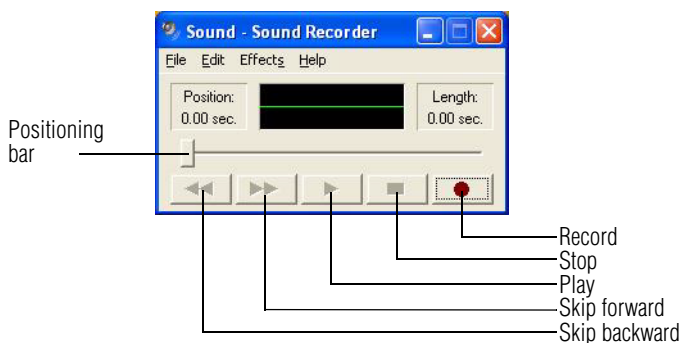To record high-quality sounds, you can use the internal microphone or attach an external microphone:

1   If you are using the internal microphone, which is located below the keyboard in the left side of the palm rest, go to step 4. Otherwise, connect an external microphone to the computer, by locating the microphone jack near the front of the right side of the computer.

2   Plug the microphone cord into the microphone jack on your computer.

3   Turn on the microphone.

NOTE   You may use the built-in microphone located on the front of your computer.

4   Click **Start**, point to **All Programs**, **Accessories**, **Entertainment**, then click **Sound Recorder**.

The Sound Recorder screen displays.

Positioning bar

Record
Stop
Play
Skip forward
Skip backward

Sample Sound Recorder screen

5 Click the **Record** button.

6 Speak normally into the microphone.

7 When you have finished recording, click the **Stop** button.

The Sound Recorder window displays the new sound file as a waveform.

NOTE   Sound Recorder can only record 60 seconds at a time.

8 To hear what you just recorded, click the **Play** button.

9 To save the file, select **Save** from the **File** menu.

NOTE   The microphone on your computer might be set to Mute. To check this, click Start, point to All Programs, Accessories, Entertainment, and then click Volume Control.

Using external speakers or headphones

Your computer is equipped with a full stereo sound system with internal speakers. Instead of using the internal speakers, you can connect headphones or a pair of external stereo speakers.

SP/DIF and headphone jack

This jack lets you connect either an optical digital audio-out cable (optional) directly to your digital stereo receiver port or a stereo headphone (16 Ohm minimum).

When you connect an optical digital audio-out cable (optional) directly to your digital stereo receiver port or stereo headphone jack, the internal speakers of your computer are disabled.

TECHNICAL NOTE: Use amplified speakers that require an external power source. Other types of speakers will be inadequate to produce sound from the computer.

To play back sound files through external speakers or headphones:

1   Locate the headphone jack on the left side of the computer.

2   Using any necessary adapters, plug the cable from the headphones or external speakers into the headphone jack.

    The headphone jack requires a 16-ohm, stereo mini-jack.

To adjust the volume:

❖   For external speakers, use the volume controls for the speakers

❖   For headphones, use the computer's volume control dial

Using the i.LINK® port

The i.LINK® port on the right side of the computer provides an extremely fast data transfer rate.

In addition to high speed, the i.LINK® port also supports isochronous data (the delivery of data at a guaranteed rate.) This makes it ideal for devices that transfer high levels of data in real-time, such as video devices.

As with USB ports, the i.LINK® port supports both Plug-and-Play (automatic configuration) and hot swapping (the ability to connect and disconnect devices while the computer is on).

Inserting and removing PC Cards

Your Qosmio G25 Series computer comes with one PC Card slot and supports two types of PC Cards:

❖ Type I cards—You can install one of these cards.

❖ Type II cards—You can install one of these cards.

Inserting a PC Card

| **CAUTION** | You can only use PC Cards in the bottom slot or ExpressCards in the top slot. You cannot insert a PC Card into the ExpressCard slot (the upper slot), nor can you insert an ExpressCard into the PC card slot (the lower slot). |

| **NOTE** | Use caution when lifting or turning your computer. Failure to do so may result in damage to components, such as cables, attached to your computer, or to the computer itself. |

Before you insert a PC Card, refer to the documentation that comes with the card to see if you need to do anything before you insert it.

To insert a PC Card:

1   Turn off the computer.

You may also hot swap a PC Card. Stop the PC Card by clicking the **Safely Remove Hardware** icon on the System tray. After the PC Card is stopped, it is safe to remove.

2   Locate the PC Card slot on the right side of the computer.

3   Insert the PC Card.
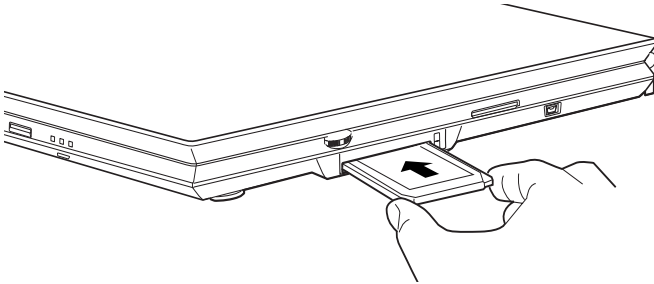
Sample inserting a PC Card

4   When the card is almost all the way into the slot, push firmly, but gently, to ensure a firm connection with the computer. Do not force the card into position.

Removing a PC Card

Stop the PC Card by clicking the **Safely Remove Hardware** icon on the System tray. After the PC Card is stopped, it is safe to remove.

1   Locate the PC Card eject button.

2   Press the PC Card eject button once to extend it, and push it in to remove the PC Card.
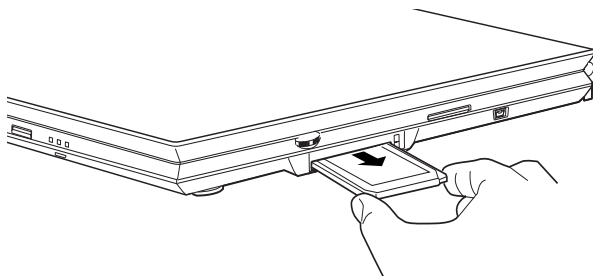
Sample ejecting a PC card

The PC Card ejects slightly from the slot.

3 Grasp the edges of the PC Card and slide it out of the slot.

Setting up a PC Card for your computer

Some PC Cards are ready to use as soon as you install them. Others, such as hard disk cards, network cards, and SCSI adapters, may need to be set up to work with your computer. To set up your PC Card, refer to the documentation that came with the card or refer to your operating system manual or online help.

Inserting an ExpressCard™

Before you insert an ExpressCard, refer to the documentation that comes with the card to see if you need to do anything before you insert it.

CAUTION   You can only use PC Cards in the bottom slot or ExpressCards in the top slot. You cannot insert a PC Card into the ExpressCard slot (the upper slot), nor can you insert an ExpressCard into the PC card slot (the lower slot).

To insert an ExpressCard:

1 Turn off the computer.

You may also hot swap an ExpressCard. Stop the
ExpressCard by clicking the **Safely Remove Hardware** icon
on the System tray. After the ExpressCard is stopped, it is safe
to remove.

2 Locate the ExpressCard slot just above the PC Card slot
on the right side of the computer.

3 Insert the PCI ExpressCard.

4 When the card is almost all the way into the slot, push
firmly, but gently, to ensure a firm connection with the
computer. Do not force the card into position.

Removing an ExpressCard™

Stop the ExpressCard by clicking the **Safely Remove
Hardware** icon on the System tray. After the ExpressCard is
stopped, it is safe to remove. Press the card until it pops out,
and then remove it.

Using the Bridge Media Adapter Slot

Your computer is equipped with a Bridge Media Adapter
Slot, which supports the use of Memory Stick™ or Memory
Stick™ PRO media, Secure Digital™ (SD™) Cards, or
xD-Picture Cards. This media can be used with a variety of
digital products: digital music players, cellular phones,
PDAs, digital cameras, digital video camcorders, etc.

NOTE   Do not use the Copy Disk function for this type of media. To
copy data from one media to another, use the drag-and-drop
feature of Windows.

Inserting media

The following instructions apply to all media devices.

1   Turn the media so that the contacts (metal areas) are face down.

2   Push the media into the adapter slot until it locks in place.
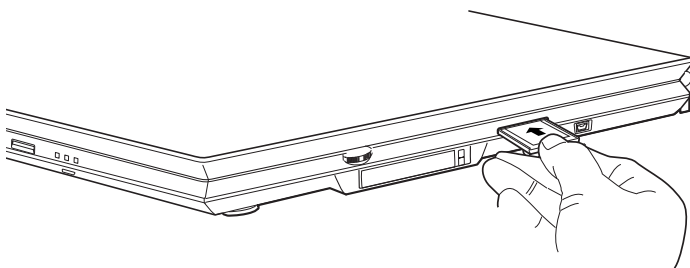
Sample inserting media

CAUTION   When inserting memory media, do not touch the metal contacts. You could expose the storage area to static electricity, which can destroy data.

CAUTION   Do not remove media while data is being written or read. Even when the Windows message "copying..." disappears, writing to the media might still be in progress and your data could be destroyed. Wait for the indicator light to go out.

Removing media

1   Right-click the **Safely Remove Hardware** icon on the System tray. After the media is stopped, it is safe to remove.

2   Grasp the card and pull it straight out.

Using QosmioPlayer

Your computer includes the QosmioPlayer software, allowing you to watch television (if the computer is connected to a television or video source), play audio CDs, or watch DVD-video without having to launch the operating system.

NOTE	When using QosmioPlayer, some MCE Remote Control options will not function.

NOTE	The QosmioPlayer is not a Windows-based application. When using the QosmioPlayer, the Audio / Video recording feature will not function.

To start the QosmioPlayer:

1 If the computer is on, turn it off or place it in Hibernation mode.

NOTE	The computer must either be off or in Hibernation mode for QosmioPlayer to start. If the computer is powered on or in Stand By mode, turn off the computer before trying to start QosmioPlayer.

2 Press the appropriate Media Control button on the system control panel:

❖ To watch television, press the TV button.

❖ To play audio CDs or watch DVD-video, press the CD/DVD button.

To shut down QosmioPlayer, press the Power button.

Using the Media Control Buttons

The Media Control buttons above the computer keyboard allow you to reverse to the previous song, skip to the next song, play or pause the CD, or stop the CD.
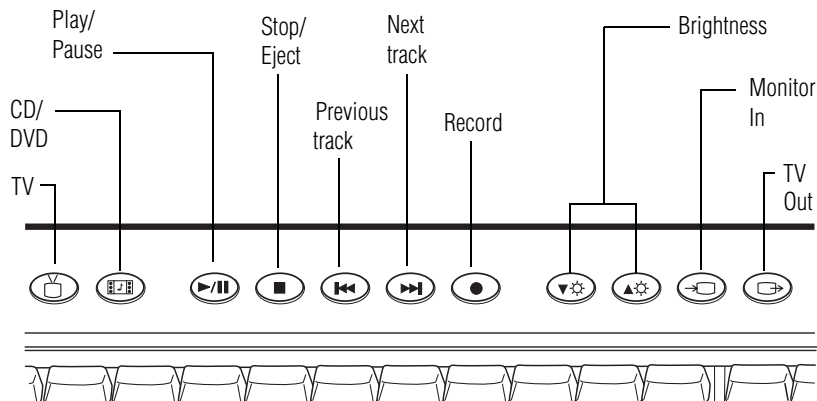
Sample CD Player Media Control buttons

NOTE   The Record button only works when using the Windows Media Center Edition, and is not operational when using QosmioPlayer.

Playing an audio CD

Insert a supported audio CD into your DVD-ROM/multi-function drive. The QosmioPlayer automatically recognizes and plays supported CDs.

When playing a supported audio CD, you also have the following keyboard options:

0-9	Press a number on your keyboard to play a specific track on the CD.
F1	Press this key to hide the audio CD option guide. Press again to re-display the guide.
CTRL + S	Press the CTRL+S keys to shuffle the CD currently playing.
CTRL+UP/ DOWN Arrow keys	Press the CTRL+UP Arrow keys to increase the volume, press the CTRL+DOWN Arrow keys to decrease the volume.
D	Press this key to display the CD status.
E	Press this key to eject the CD from the drive.
CTRL+R	Press the CTRL+R keys to repeat the current song.
SPACE	Press this key to pause the song currently playing. Press the key again to start playing the song.
CTRL+SPACE	Press the CTRL+Space keys to stop the CD.
M	Press this key to mute the song currently playing.
< or O	Press this key to reverse the song 10 seconds.
> or P	Press this key to forward the song 10 seconds.
L	Press this key to skip to the next song.
K	Press this key to reverse to the previous song.

Playing a DVD

Insert a supported DVD into your DVD-ROM/multi-function drive.

The QosmioPlayer automatically recognizes and plays all supported DVDs.

The Media Control buttons above the computer keyboard allow you to move to the previous chapter or next chapter, play or pause the movie, or stop the DVD.

NOTE   The following options must be supported by the DVD you are playing or they will not be available for use.

When playing a DVD, you have the following options:

F1	Press this key once to display the basic DVD guide options. Press the key twice to display the full DVD guide options. Press the key again to hide the DVD guide options.
0-9	Press a number on your keyboard to play a specific DVD chapter.
CTRL+UP/ DOWN Arrow keys	Press the CTRL+UP Arrow keys to increase the volume, press the CTRL+DOWN Arrow keys to decrease the volume.
D	Press this key to view the display status.
E	Press this key to eject the DVD from the disc drive.
CTRL+R	Press the CTRL+R keys to repeat the DVD.
SPACE	Press this key to pause the DVD. Press the key again to resume playing the DVD.
CTRL+SPACE	Press the CTRL+Space keys to stop the DVD.
<	Press this key to fast reverse the DVD.
>	Press this key to fast forward the DVD.

NOTE Duplicated DVD discs may not play with QosmioPlayer. In addition, if any of the media are scratched or dirty, or not in compliance with standards, they may not play properly. In these cases, power on your computer and use the WinDVD™ software to play DVDs.

TECHNICAL NOTE: Your DVD-ROM or multi-function drive is set to play region 1 (North America) DVD-ROMs. If you cannot view the DVD because of a region error, be sure to change the region code in the Windows® operating system.

The drive will allow you to change regions four times. On the fourth change, the region will be "locked in." That is, the drive will only play DVDs from that last region. Note that changing from region 1 to region 2 and back to region 1 is counted as two changes.

You must launch the Windows operating system to change the DVD region, but once the region has been changed, you can then play the DVD using QosmioPlayer.

Watching television

Pressing the **TV** Media Control button allows you to watch television, if a TV source is connected to the computer.

The first time you watch television, use the Setup menu to scan the available channels and select other settings. To display the Setup menu, press the F2 key on the computer or the **Set Up** button on the QosmioPlayer remote control.

Sample Setup menu

When viewing television programs, you have the following options:

0-9	Press a number on your keyboard to watch a specific channel.
PAGE UP/ DOWN	Press the PAGE UP key to scroll backward through channels, press the PAGE DOWN key to scroll forward through channels.
CTRL+UP/ DOWN Arrow keys	Press the CTRL+UP Arrow keys to increase the volume, press the CTRL+DOWN Arrow keys to decrease the volume.
i	Press the i key to scroll through inputs to the TV tuner: S-video, Composite In, and Antenna In.
F1	Press the F1 key to view the television guide.
F2	Press the F2 key to access the Setup menu.

Connecting an External Device

You can connect any external device, such as a camcorder or game box, that uses a video out/audio out composite connection. This allows you to use your computer to watch home movies, play video games, and so on. See the documentation for the external device you are using for more information.

1   Connect the external device to the computer using the composite cable plug on the back of the computer.

2   Press the Monitor button to establish the connection with the external device.
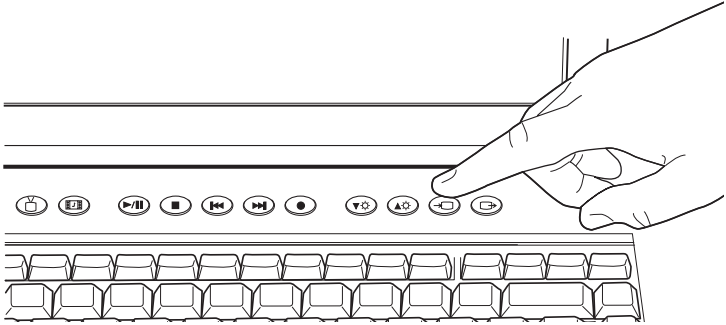
Sample pressing the Monitor button

3   Press the Monitor button to close and exit the external device environment and return to Windows or the QosmioPlayer.

Toshiba Qosmio Remote Control

You can use your Toshiba Qosmio Remote Control to play CDs, DVDs, and videos; to view pictures; and to watch television programs through QosmioPlayer.

The remote control helps you navigate the QosmioPlayer windows on your computer just as a cable TV remote control navigates cable TV options or controls the playback of a movie in a VCR or DVD player.

Using the remote control, you can:

❖   Navigate and control all QosmioPlayer windows

❖   Control the video or live TV display

The remote control can send a strong signal to the remote sensor from within a range of about 26 feet and from an angle of about 45 degrees.

Remote Control Buttons Overview

Power

Stop

Record

Rewind

Replay

Back

Arrows

Volume Control

Recorded TV

Guide

MY TV — MY MUSIC — MY PICTURES — MY VIDEOS

RECORD — STOP — PAUSE

REW — FWD

REPLAY — SKIP

BACK — OK — MORE

START

VOL — MUTE — CH PG

RECORDED TV — GUIDE — LIVE TV — DVD MENU

1 — 2 ABC — 3 DEF
4 GHI — 5 JKL — 6 MNO
7 PQRS — 8 TUV — 9 WXYZ
* — 0 — #

CLEAR — ENTER

TOSHIBA

Pause

Play

Forward

Skip

More

OK Button

Start

Channel/ Page Control

Mute

DVD Menu

Live TV
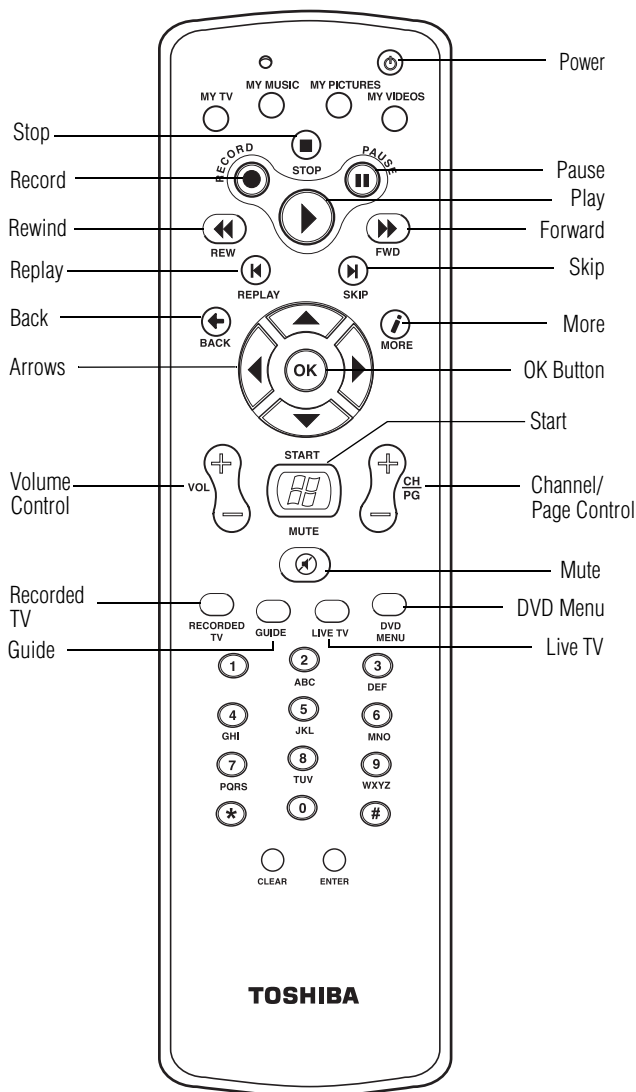
Sample Remote Control

The remote control has the following buttons/functions depending on which mode you are using:

Button	Function		
	TV Mode	**DVD Mode**	**Audio Mode**
Power	Turns the computer's power on and off	Turns the computer's power on and off	Turns the computer's power on and off
Play	None	Plays the current DVD	Plays the current CD
Pause	None	Pauses the current DVD	Pauses the current CD
Stop	None	Stops the DVD currently playing	Stops the CD currently playing
Record	Displays the message, "This function is not supported"	None	None
Fwd	None	Moves the DVD forward	Moves the CD forward
		Pressing **FWD** up to 5 times in succession increases the fast forward speed.	Pressing **FWD** up to 5 times in succession increases the fast forward speed.
Rev	None	Moves the DVD backwards	Moves the CD backwards
		Pressing **REV** up to 5 times in succession increases the rewind speed.	Pressing **REV** up to 5 times in succession increases the rewind speed.
Skip	None	Moves the DVD forward one chapter	Moves the CD forward one track
Replay	None	Moves the DVD forward one chapter	Moves the CD forward one track
More	Displays the current TV channel in the screen's upper right corner	Displays the DVD's title and chapter menu (available only when the DVD is playing)	Toggles between analog and digital
Back	Moves the cursor back one selection within QosmioPlayer menu	Moves the cursor back one selection within QosmioPlayer menu	None
Up	Moves the cursor up one selection within QosmioPlayer menu	Moves the cursor up one selection within QosmioPlayer menu	None

Button	Function		
	TV Mode	**DVD Mode**	**Audio Mode**
Down	Moves the cursor down one selection within QosmioPlayer menu	Moves the cursor down one selection within QosmioPlayer menu	None
Left	Moves the cursor left one selection within QosmioPlayer menu	Moves the cursor left one selection within QosmioPlayer menu	None
Right	Moves the cursor right one selection within QosmioPlayer menu	Moves the cursor right one selection within QosmioPlayer menu	None
OK	Accepts the current selection within QosmioPlayer menu	Accepts the current selection within QosmioPlayer menu	None
Start	Displays the message, "This function is not supported"	None	None
Chan up	Changes the TV channel	None	None
Chan dn	Changes the TV channel	None	None
Vol up	Increases (up arrow) the volume	Increases (up arrow) the volume	Increases (up arrow) the volume
Vol dn	Decreases (down arrow) the volume	Decreases (down arrow) the volume	Decreases (down arrow) the volume
Mute	Disables your computer's sound	Disables your computer's sound	Disables your computer's sound
	Click again to enable sound	Click again to enable sound	Click again to enable sound
Reced TV	Displays the message, "This function is not supported"	None	None
Guide	Displays the QosmioPlayer menu	Press Guide one time to display a limited QosmioPlayer menu. Press again to display the full QosmioPlayer menu	Displays the QosmioPlayer menu
		(Only available when a DVD is inserted into the computer's drive)	

Button	Function		
	TV Mode	**DVD Mode**	**Audio Mode**
Live TV	None	Takes you to the current point in a live TV program	Takes you to the current point in a live TV program
DVD Menu	Displays the QosmioPlayer menu	Displays the main menu of the DVD	None

Using the Toshiba Qosmio Remote Control

To begin using your remote control:

1   Point the remote control at the remote sensor. The remote sensor is located on the front of your computer. Make sure there is nothing blocking the path between your remote control and the remote sensor.

2   If your computer is powered on, turn it off or place it in Hibernation mode.

3   Perform one of the following steps:

❖   To watch television, press the **TV** button to start QosmioPlayer in TV mode.

❖   To play a DVD/CD, press the **Media** button to start QosmioPlayer in Media mode.

NOTE   Once QosmioPlayer starts, you can use the TV and Media buttons to switch between TV and Media modes.

4   To access the inputs to the TV tuner (S-video, Composite In, and Antenna In), press the **Input** button with QosmioPlayer in TV mode.

5   If you wish to watch television, press the **Set Up** button with QosmioPlayer in TV mode to display the

QosmioPlayer Setup menu. Then use the arrow keys to select the desired options and press **OK** to accept them.

NOTE   The Setup menu is important when configuring television for the first time, because you can use it to scan the available channels.

Installing the QosmioPlayer Recovery media

To recover or repair QosmioPlayer on a computer that has the application installed:

1   Insert the QosmioPlayer Recovery media into the drive, close the drive tray, and restart your computer from the CD.

2   Press the **1** key on the computer's keyboard to recover to the initial configuration.

3   Follow the on-screen instructions to complete the recovery.

Chapter 5

Getting to Know the Windows® XP Media Center Edition 2005

This section introduces you to the Windows® XP Media Center Edition 2005, a complete multimedia center where you can play your entire library of audio, video, and picture media on your computer, using either your computer's keyboard, mouse, or the remote control. With the Media Center, you can:

❖ Watch TV or a DVD movie

❖ Automatically record TV shows

❖ Pause, rewind, and fast forward TV programs using the Media Center time shifting feature

❖ Watch an instant replay

❖ Play back your digital videos

❖ View your digital pictures, or play them as a slide show

❖ Browse, select, and play music CDs and DVD movies

❖ Update the Television Program Guide from the Internet

Media Center Setup

This section shows you how to set up your computer to use the Media Center. There are many different methods you can use to connect your television and computer which are covered in the following sections.

Connecting to a Television

Your computer has TV-out capability, meaning you can connect it to a television and view the computer image on the television.

Using your computer's integrated TV Tuner and the Microsoft Windows® XP Media Center Edition 2005 operating system, you can also record or view TV programs.

⚠ WARNING If you have to operate your computer during a thunderstorm and are connecting the TV tuner to an outside antenna, you should operate your computer using AC power mode. The AC adapter offers some protection against (but does not entirely prevent) possible electric shock caused by lightning. For complete protection, do not operate your computer during a thunderstorm.

NOTE Transmission quality may vary by location and channel.

For best results in recording or viewing, your computer requires the use of an external Set-top box or Cable Box using a high quality signal as the main source. Failure to comply with these instructions will not produce optimum recording or viewing quality. For more information, see "Connecting a VCR/DVD player or Set-Top Box to the Computer" on page 174.

NOTE Some stations may not come in clearly if the signal is not strong enough. If you do not have a Set-top box, you may need to purchase a signal amplifier which may help boost and improve the cable signal. Contact your service provider for the proper hardware recommendations.

There are two different ways you can connect your computer to a TV:

1 Turn off the computer.

2 If your TV accepts component video inputs:

❖ Connect the component video adapter cable (included with your computer) to the TV's component video input. Connect the adapter cable to the D-connector on the back of your computer.

If your TV accepts S-video inputs:

❖ Connect an S-video cable (not shipped with your computer) from the TV's S-video input connection to the S-video Out connector on the back of your computer.

3 Connect an audio cable (not shipped with your computer or system) from the TV's audio connection to the headphone jack on the right side of your computer.

4 Turn on the TV, then turn on the computer.

5 To send the display signal to the TV, press the "Instant TV Out" button, which is the furthest right button of the Media control buttons above the keyboard (or press FN+F5), and then toggle to the TV icon.

NOTE This step must be taken before launching the Media Center or the InterVideo WinDVD™ Player.

Connecting the TV Signal Source When You Have an Existing Setup

This section describes how to connect the signal source from the wall to a VCR/DVD player to a TV using two coaxial cables (not shipped with your computer or system).

1   Remove the coaxial cable from the VCR/DVD player input, and connect it to the input of a coaxial cable signal splitter (not shipped with your computer or system).

2   Connect two coaxial cables to the splitter outputs.

3   Connect one of the coaxial cables to the VCR/DVD player input, and the other end to the coaxial adapter cable (included with your computer). Connect the adapter cable to the Antenna In port on the back of the computer.

| NOTE | To connect your computer to a TV, you need an S-video cable (not included with your computer or system). |

Connecting a VCR/DVD player or Set-Top Box to the Computer

There are three different ways you can connect a VCR/DVD player or Set-Top box to the computer:

❖   Connect the AV Composite cable (not included) from the VCR/DVD player or Set-top box to the Composite Video/Audio Adapter cable (included with your computer). Connect the adapter cable to the RGB (monitor) port on the back of the computer.

❖   Connect a coaxial cable from the VCR/DVD player or Set-top box to the coaxial adapter cable (included with your computer). Connect the adapter cable to the Antenna In port on the back of the computer.

❖ For those VCR/DVD players or Set-top boxes that support S-video out, connect an S-video cable from the VCR/DVD player or Set-top box to the S-video in port on the back of the computer.

Existing setup   **Add the notebook with a splitter**
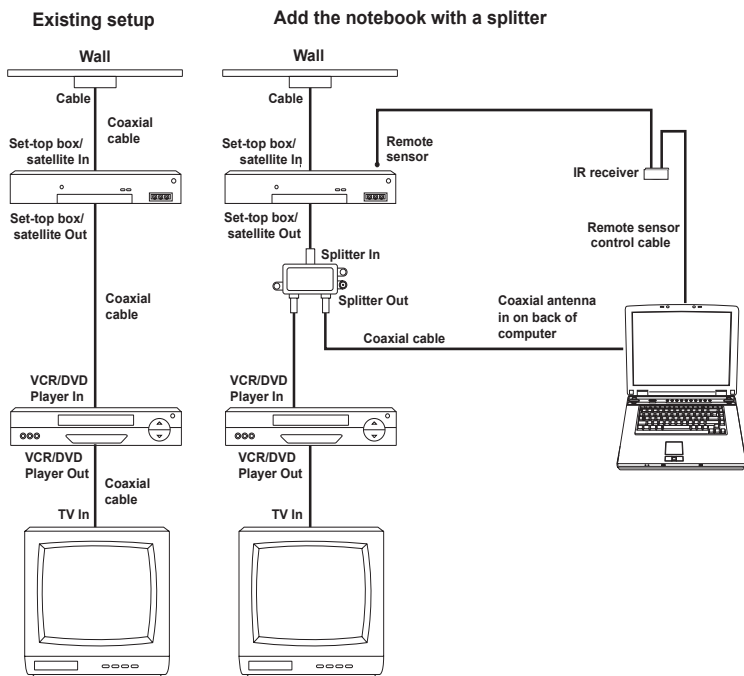
Sample wall-to-VCR/DVD player-to-TV setup

Connecting the External Remote Sensor

The external IR remote sensor is a small device that connects to the computer and allows the remote control to work with the Media Center programs.

If you have a cable TV Set-top box, satellite, or other Set-top box that controls your TV signal, connect the remote sensor control cable to the remote sensor and position the end of it over the remote receiver on your cable box.

1   Connect the IR receiver cable USB connector to an available USB port on your computer.

2   Connect the IR remote sensor cable (small 3.5 mm) connector to one of the ports on the IR receiver.
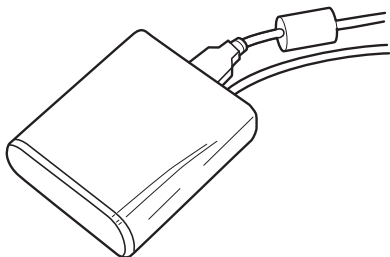
Sample IR receiver with cables attached

3   Position the end of the IR receiver cable over the remote IR receiver window on your cable TV Set-top box or VCR/DVD player.

4   Peel off the adhesive backing on the IR remote sensor and mount the sensor within 5 inches of the Set-top box or VCR/DVD player.

5   Install batteries in the remote control.

Starting the Media Center

To start the Media Center:

❖   Point the remote at the remote sensor and press the remote control's **Start** button. You can also click **Start**, and then click **Media Center**.

Media Center opens in full screen mode.

NOTE   The first time you open Media Center, the program displays a setup wizard. You will use the wizard to test your remote control and configure your Internet connection, TV signal, Television Program Guide, and speakers.

To complete the setup procedure you need to:

Log on as an administrator. For more information, refer to your Microsoft Help.

Have an Internet connection to download your television service provider's program guide.

Know your ZIP Code.

Provide the name of your television service provider, if you subscribe to either cable or satellite TV.

Provide the brand of your Set-top box, if you use one.

If you have questions on using the setup wizard, click Help.

To complete the Media Center Setup, follow the wizard's on-screen prompts. For more information, see the Microsoft XP Media Center Edition Help file on your computer:

1   Click the help icon located at the top of each screen.

2   Click **Help - Get help using Media Center**.

3   Click **Set up Media Center**.

Sample Media Center Setup Wizard: Welcome screen

1 Click **Next**. The wizard displays the Media Center Setup screen.

2 Click **Next**. The wizard displays the Media Center Privacy Policy screen.

3 Read the Media Center Privacy Policy, then click **Next**. The wizard displays the Get the Most from Media Center screen.

4 Click **About Privacy** and read the privacy notice.

5 Click **Yes** to allow Media Center to connect directly to the internet.

6 Click **Next**. The system displays the Always on Internet Connection screen.

7 Click **Yes** to verify that your internet connection is always on.

8 Click **Next**. The wizard displays the Test Your Internet Connection screen.

9 Click **Test** to verify that your computer is connected to the Internet.

❖ If the connection is not working, the wizard displays an error message. Recheck both ends of your connection and click **Test**.

❖ If the connection is working, the screen displays a message to that effect and highlights the Next button.

When the connection is working correctly, click **Next**. The wizard displays the Required Components Have Been Set Up screen.

10 Click **Next**. The wizard displays the Optional Setup screen.

11 Click **Configure tuners, TV signal, and Guide**, then click **Next**. The wizard displays the Confirm Your Region screen.

12 Click **Yes, use this region to configure TV services**, then click **Next**. The wizard displays the Automatic TV Signal Setup screen.

13 Click **Configure my TV signal automatically (Recommended),** then click **Next**. The wizard displays the Prepare for Automatic Signal Configuration screen.

14 Make sure that your computer is connected to a TV (for instructions, see "Connecting to a Television" on page 172). Then click **Next**. The wizard displays the Examining your TV Signal Setup screen and begins to scan your system. When the scan is complete, the wizard displays the TV Signal Configuration Result screen, and displays the following message: **Signal is detected**.

NOTE   When you set up the TV Signal and identify the Set-top box remote, you may receive a "Remote Not Recognized" message.

When this occurs, you must select the Have Media Center Learn My Remote Again From Scratch option.

When you get to the Test Channel Changing option, the set up program asks you to use the remote. To change the channels, you use the numbers on your keyboard.

When the remote control set up is complete, you can change TV stations through Media Center by using the channel up or channel down buttons on the remote.

To skip from channel to channel, for example, from channel 4 to channel 52, you can select channels in Media Center's TV Guide by using the up and down arrow keys and OK button on the remote. You can also use the cable Set-top box remote to select channels.

15 Click **Yes**, then click **Next**. The wizard displays the Guide Privacy screen.

16 Click **View the Guide privacy statement**, read the statement, click **Yes**, then click **Next**. The wizard displays the Guide Terms of Service screen.

17 Read the Guide Terms of Service (use the down arrow to view the entire document), click **I agree**, then click **Next**.

NOTE   If you click I do not agree, the electronic TV Guide will not be accessible on your computer.

You can download the Guide at a later date. To do so, click Settings on the main MCE window, then click TV and Guide. Select Set Up Guide Listings to reactivate this portion of the wizard.

The wizard displays the Enter Your ZIP code screen.

18 Use the numeric keys on your keyboard to enter your ZIP code, then click **Next**. The wizard displays the Download Provider Information screen.

The Media Center connects to the internet and begins to download information about your local TV provider.

The screen displays a message when the download is complete.

19 Click **Next**. The wizard displays the Select TV Signal Provider screen.

20 Select your TV signal provider from the list. If you have digital (typically used with a Set-Top converter box) select **Digital**. Otherwise, select the basic option.

21 Click **Next**. The wizard displays the Download TV Program Guide Information screen and begins to download TV guide information from your TV signal provider.

22 Click **Next** when the download is complete. The wizard displays the Optional Setup screen.

23 Select **Optimize how Media Center looks on your display**, then click **Next**. The wizard displays the Display Configuration screen.

24 Click **Next**. The system displays the Identify Your Display Type screen.

25 Select **Traditional TV/Monitor**, and click **Next**. The wizard displays the Connection Type screen.

26 Select **Composite or S-Video** (whichever one you are using), and then click **Next**. The wizard displays the Optimize Media Center for Your Display screen.

NOTE   The Composite and S-Video ports cannot be used at the same time.

27 Click **Keep my current settings and continue**, then click **Next**. The wizard displays the Adjust Your Display Settings screen.

28 Click **Finish this wizard**, then click **Next**. The wizard displays the You Are Done! screen.

29 Click **Next**. The wizard displays the Optional Setup screen.

30 Select **Set up your speakers**, and then click **Next**. The wizard displays the Welcome to Speaker Setup screen.

31 Click **Next**. The wizard displays the Choose number of Speakers screen.

32 Select the number of speakers on your system (the system has two internal speakers), then click **Next**. The wizard displays the Test Your Speakers screen.

33 Click **Test**, and follow the instructions on the screen. Click **Next**. The wizard displays the You Are Done! screen.

34 Click **Finish**. The wizard displays the Optional Setup screen.

35 Click **I am finished**, then click **Next**.

36 Click **Finish**. The system displays the **You are done** screen.

When the wizard runs to completion, the program displays Media Center's main window. It is not necessary to restart your computer.

Using Media Center

NOTE

You can run Media Center side by side with other Windows software programs. It is possible to browse through your pictures, watch videos, play music, and even record TV while using other Windows programs. Simply resize the Media Center window as you would any other window. For more information, refer to the online Help.
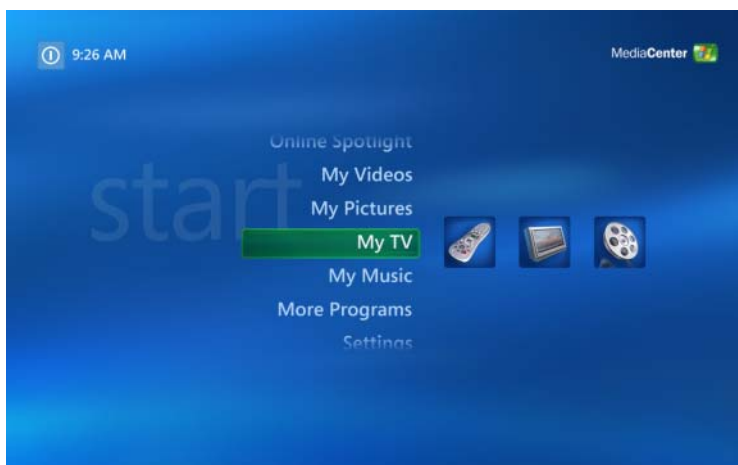
Sample Media Center main window

The Media Center main window is the central point for controlling all Media Center features. With a quick click of the mouse or using your remote control, you can:

❖ Watch or record TV programs

❖ Listen to music

❖ Display your digital photos

❖ Watch your own digital movies

❖ Watch a DVD movie

❖ Change your Media Center Settings

When enjoying the Media Center, use the icons on the Title Bar to return to the Media Center main screen, go back to the previous screen, or to display the Media Center's online help.

Home screen   Back   Help

Sample Title Bar Icons

Use the Media Playback controls at the bottom of the screen to control your movies, music, and photo displays.

Channel up and down

Play

Stop

Record

Replay, Rewind (Previous)

Skip, Fast Forward (Next)

Mute

Volume up and down
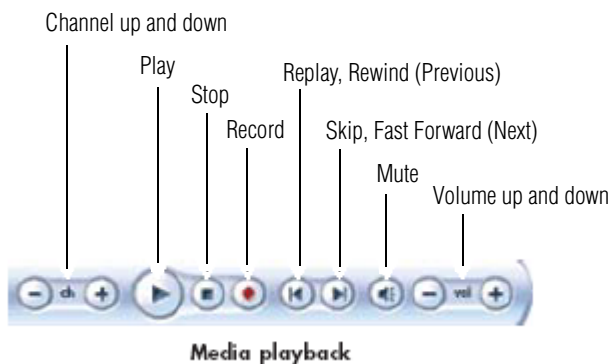
Media playback

Media Playback controls

Navigating Media Center

In the Media Center windows, a selected item, such as a folder, file, or menu item is outlined with a green border.

To select items, use the arrow buttons on the remote control, and then the **OK** button to enter your selection.

If you have media playing, such as music or a television program, it displays in an inset window in the lower left corner. To switch from watching your media in the inset window to watching it in full screen mode, use the arrows on the remote control to select it and then press **OK**.

Using the Toshiba Qosmio Remote Control with Media Center

You can use your remote control with Media Center to play CDs, DVDs, and videos; to view pictures; and to watch and record television programs.

The remote control helps you navigate the Media Center windows on your screen, just as a cable TV remote control navigates cable TV options or controls the playback of a movie in a VCR or DVD player.

Using the remote control, you can:

❖ Navigate and control all Media Center windows

❖ Control the video or live TV display

❖ Place the computer in and out of Stand By mode (for more information on Stand By mode, see "Using Stand By Mode" on page 113)

The remote control can send a strong signal to the remote sensor from within a range of about 26 feet and from an angle of about 45 degrees.

Remote Control Buttons Overview

Power

Stop

Record

Rewind

Replay

Back

Arrows

Volume
Control

Recorded
TV

Guide

Pause

Play

Forward

Skip

More

OK Button

Start

Channel/
Page Control

Mute

DVD Menu

Live TV
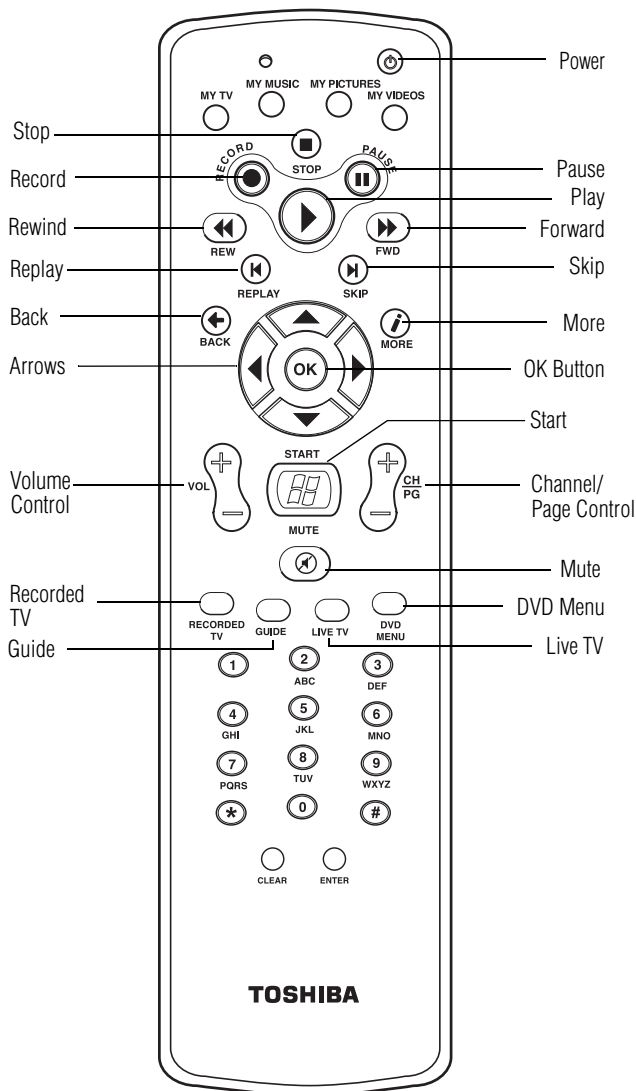
Sample Remote Control

The remote control has the following buttons/functions:

Power — Turns the computer on and starts Windows if the computer is off or in Hibernation mode. If the computer is running Windows or Media Center, pressing **Power** turns off the computer.

Stop — Stops the media currently playing.

Record — Records the selected television program and stores it on your hard disk.

Rewind — Moves the media (video, DVD, music, and so on) backwards.

Replay — Moves media (video, DVD, Music, and so on) backwards.

Back — Displays the previous window.

Arrows — Moves the cursor to navigate within Media Center windows.

Volume Control — Increases (up arrow) or decreases (down arrow) the volume.

Recorded TV — View recorded TV.

Guide — Opens the Television Program guide to display available TV channels and programs to watch and record.

Pause — Pauses an audio or video track, and live or recorded TV programs.

Play — Plays the media.

Forward — Moves media (video, DVD, music, and so on) forward. To stop forward progress of the media, press **Play**.

Skip — Moves media (video, DVD, music, and so on) forward.

More — Provides more details on a TV program than is listed in the Guide.

OK — Selects the desired action or window option. It acts like the Enter key. If you are watching TV, press **OK** to switch back to the previously viewed channel. Press again to toggle back. OK acts the same way as a Jump button on some TV remote controls.

Start — Opens Media Center to the main window.

Channel/Page Control — Changes the TV channel or moves a page up and down, depending on the available options.

Mute — Disables your computer's sound. Press again to enable sound.

DVD Menu — Opens the main menu on a DVD movie, if available.

Live TV — Takes you to the current point in a live TV program after pausing live TV.

Remote Control Button Groups

Use your remote control to navigate all the Media Center windows. Your remote control includes four major groups of controls.

❖ **Media record and playback** — The media record and playback buttons control the recording and playback of music, DVD movies, videos, live TV programs, and picture slide shows.

❖ **Navigation and direct access** — The navigation buttons move the cursor around to select desired action or window options. much like a mouse does.

    The other direct access buttons open specific windows within Media Center such as recorded TV programs, the Television Program Guide, a DVD main menu, and live TV.

❖ **Audio and Video** — The audio and video buttons control sound and channel selection.

Direct Access Buttons

The direct access buttons place Media Center in Recorded TV, live TV, TV program guide, or the DVD menu mode.

❖ **Recorded TV** launches Media Center into Recorded TV mode when the computer is powered off or in Hibernation mode. Use this mode to watch recorded TV. When the computer is powered on, use this button to launch Media Center.

❖ **Guide** launches Media Center into the TV program guide mode when the computer is powered off or in Hibernation mode. Use this mode to display a list of TV programs available for viewing. When the computer is powered on, use this button to launch Media Center.

❖ **Live TV** launches Media Center into TV mode when the computer is powered off or in Hibernation mode. Use this mode to watch television, so long as a TV source is connected to the computer. When the computer is powered on, use this button to launch Media Center.

❖ **DVD Menu** launches Media Center in DVD Menu mode when the computer is turned off or in Hibernation mode. Use this mode to view the menu for the current DVD or CD. When the computer is powered on, use this button to launch Media Center.

Media Playback Buttons

These buttons allow you to play back picture slide shows, music files, playlists, music CDs, DVD movies, home videos, and live TV (so long as a TV source is connected to the computer) from within Media Center.

Use **Pause** to pause selected media. Press **Pause** and then **Forward** repeatedly to play media frame by frame in slow motion. To continue slow motion, you must press the **Forward** button more than once.

Press **Play** to play selected media.

Use **Forward** to move selected video or picture media forward. Press **Forward** up to three times to increase the fast forwarding speed. Pressing the **Forward** button:

❖ Moves pictures forward to the next picture

❖ Moves a video forward

❖ Moves a TV program (that has been paused or stopped) forward to the current moment in live TV, and then begins playing

To stop forward progress of the media, press **Play**.

Use **Record** to record TV programs. This button is inactive when other media is playing.

❖ While watching live TV or in the Guide, you can press the **Record** button once to record a TV show.

❖ In the Guide, you can press **Record** twice to record a TV series.

❖ In the Guide, press **Record** three times to cancel recording.

Use **Rewind** to rewind selected video or picture media. Press **Rewind** again to increase the rewinding speed. Pressing the **Rewind** button:

❖ Moves the picture slide show backward to the previous picture

❖ Moves the video backward

❖ Moves live TV program to the beginning of the 30-minute pause buffer

Use **Stop** to stop selected media from playing. When this is pressed while you are watching TV, the Media Center pause buffer continues to record in the background.

Use **Next** to move forward in the selected audio or video file.

❖ For music, **Next** moves to the next track.

❖ For DVDs, **Next** moves to the next chapter.

❖ For videos and live TV and videos, **Next** moves ahead 30 seconds.

Use **Previous** to move backward in the selected audio or video file.

❖ For music, **Previous** moves to the previous track.

❖ For DVDs, **Previous** moves to the previous chapter.

❖ For videos and live TV and videos, **Previous** moves back seven seconds.

Using the Remote Control

To begin using your remote control:

1 Point the remote control at the remote sensor. The remote sensor should be located near your monitor or in a convenient place. Make sure there is nothing blocking the path between your remote control and the remote sensor.

2 Press the **Start** button to start the Media Center and to open the Media Center main window.

Use the arrow keys on the remote control to select an item, and then press **OK** to select an option and begin using the Media Center.

3 Press **Back** to return to the previous screen.

Watching Television Programs

NOTE   Before you can watch TV using Media Center, make sure your computer is set up correctly for your TV signal source and that you have completed the Media Center setup wizard.

NOTE   The TV Tuner will function only in the country where the computer was purchased.

Sample Media Center main window, My TV

In My TV you can:

❖   Search for TV shows to watch or record using the Television Program Guide

❖   Watch your favorite television programs in full screen mode or in an inset window

❖   Pause, stop, rewind, and fast forward live TV, similar to the way you would control a DVD from a DVD player

❖ Record a single TV show or an entire series (my TV will manage the recordings for you and give advanced warning if there are any recording conflicts)

❖ Create a recorded TV library

❖ Quickly check which TV shows you have scheduled to record

❖ View and record movies

❖ Search for TV shows by title, keyword, or category

NOTE	If your computer enters Standby mode while you are viewing television, and you resume the computer, the live TV screen will be blank. Press the OK button to return to live TV.

To watch a television program:

1 Press **Live TV** on the remote control.

The last channel selected or the first channel available begins to play in full screen mode.

2 Select a channel by using the Channel/Page (+ or -) buttons or by using the numeric keys on your keyboard.

The channel number displays in the window.

3 Press **Back** on the remote control to exit full screen mode and view the Media Center main menu.

Selecting a Program from the TV Guide

To select a program from the TV Guide:

1 Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window.

2 Select **My TV**.

3 Select **Guide**.

4 Use the arrows on the remote to scroll through the list of current television programs and channels available from your television service provider. The TV Guide displays the channel and network, as well as the show title and scheduled time block. The number of days displayed depends on your television service provider.

❖ To view a program, double-click it, or select it with the remote control and click **OK**.

5 Press **OK** on the remote to select the program that you want to view. Media Center displays a detailed description of the program at the bottom of the screen.

❖ If the program is live, press **Watch** to view the program.

❖ If the program is not currently playing, press **Record** to record the program.

❖ You can have Media Center automatically connect to the Internet and update your Guide.

NOTE   Not all Internet Service Providers support this feature. Check with your service provider for more information.

❖ You can manually update the TV Guide in the Media Center Settings window at any time, even if you have automatic updates set up.

❖ If the TV Guide has not been downloaded from the Internet because there is no Internet connection, the message "No data available" displays next to each channel.

❖ The number of channels and calendar days of TV listings depends on your television service provider.

❖ The TV Guide does not display past TV listings.

Watching a Recorded TV Program

Recorded TV is the storage place for all your recorded programs. In the Recorded TV window, you can sort your shows by name, date, or status. You can also delete a recorded program or series of programs and check for any recording errors.

To watch a previously recorded TV program:

1 Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window.

2 Select **My TV**.

3 Select **Recorded TV**.

All of your recorded TV programs display on the Recorded TV screen.

NOTE   You can sort your programs by Date or Title by clicking the desired sort option.

4 Use the arrow buttons to select the recorded program you want to watch. Click the program to view details and additional options.

5 Press **OK** on the remote control to begin watching the program, or click Play on the Media Center screen.

Changing a scheduled recording

To change a scheduled recording:

1 Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window.

2 Select **My TV**,

3 **Select Recorded TV**.

4 Select **Scheduled** to view a list of all programs scheduled to be recorded. Use the Sort by Date and Title options to sort the scheduled programs, if needed.

Use the arrow buttons to move through the list, select a program, and then press **OK** on the remote control. Select the option, and make the required changes.

5 Press **OK**.

NOTE   You can resolve recording conflicts on the Scheduled screen.

NOTE   To return to the previous menu, press Back on the remote, or click the back arrow at the top of the screen.

Searching for a TV Program to Watch

You can search the TV Guide to find a TV program that you want to watch by entering a title, keyword, or by selecting a category using your remote control.

To search for a TV show:

1 Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window.

2 Select **My TV.**

3 Select **Search**.

4 Select Category, Title, or Keyword.

❖ Select **Category**. Select a category, for example, News, and drill down the programs listing.

❖ Select **Title**. Use the keys on your keyboard to enter a program title word, and then press **OK** on the remote control. Media Center displays the search results.

❖ Select **Keyword**. Use the keys on your keyboard to enter a descriptive word that would appear in a program title or program description, and then press OK on the remote control. Media Center displays the search results.

5 Use the arrow buttons to scroll through the search results, select a show, and then press **OK**. If the show appears multiple times, select a time and press **OK**.

If the show is not currently playing, select **Record Show** or **Record Series**, and then press **OK**.

Recording TV

The Media Center allows you to record TV programs for later viewing. You can record the show you are watching, or you can record another or future show or series from the Guide, the Search, or the Settings window in My TV.

To record a TV show you are currently watching, just press the **Record** button on the remote control once. The Record icon (a red dot) appears in the Guide next to the program being recorded or to be recorded at a later time.

Record Icon

Sample My TV screen with recorded notation

If a show is currently being recorded, the Record icon also appears in the taskbar on the desktop. If you move your mouse over the icon, the Media Center displays which show is currently being recorded. You can right-click the icon to open Media Center and stop recording.

Media Center automatically records until the show is scheduled to be over as listed in the TV Guide. To make sure your show is being recorded, you can select **TV Guide** from the My TV screen. The Record icon should appear next to the show in the TV Guide while you are recording. The Record icon disappears when the recording is complete.

If there is a recording conflict or error, the Record Conflict icon appears next to the show in the TV Guide. This means the show will not be recorded unless the conflict is resolved.

NOTE   You can resolve recording conflicts on the Scheduled screen.

Recording TV tips

❖ If you are watching live TV during a scheduled recording time, you can watch only the show being recorded. If you change channels, the recording stops.

❖ If you go to another area in the Media Center, the TV channel you last selected will be displayed in the inset window at the bottom of the window.

❖ When scheduling a recording in the TV Guide, you can press the **Record** button once to record a show, twice to record a series, or three times to cancel a scheduled recording you just selected.

❖ Multiple record icons (red dots) next to a show indicates that Media Center is set to record the series.

❖ When you press the **Record** button to record a show you are watching, the recording automatically stops at the end of the show's regularly scheduled end time.

❖ Some channels can be shared by two or more networks, depending on the time of day. The Guide may display only one network's programming. This may cause recording options to be unavailable. You may need to manually update the Guide before scheduling a recording.

NOTE   If you turn off your computer, the Media Center will not record a scheduled program. Your computer must be turned on or in Stand By mode to record a TV program. The computer will not automatically go into Stand By mode if the Media Center is open.

Recording from the Guide

To record a current or future show or series from the Guide:

1 Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window.

2 Select **My TV**.

3 Select **Guide**.

4 Use the arrow buttons on the remote control to find the show you want to record.

5 Select **Record** on your remote to record the show. The Record icon appears next to the show in Guide.

To record the series, press record twice. The Record Series icon is displayed to indicate a series.

6 Press **Back** on the remote control to return to the previous window.

If there is a recording conflict, Media Center displays a message and allows you to select which show you want to record.

Recording from Search

To record a current or future show or series using Search:

1 Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window.

2 Select **My TV**.

3 Select **Search**.

4 Select **Title**, **Keyword**, or **Categories**. For Title and Keyword searches, enter your descriptive search words. The Media Center starts searching from the first letter you type into the text box.

For a Categories search, select the category you want and press **OK**. Drill down to the programs listing.

5 Use the arrow buttons to scroll through the search results to select the show you want to record, select the show, and then press **OK**.

6 Select **Record** or **Record Series** in the window, and then press **OK**. The recording icon for a single program or the recording icon for a series appears next to the show in the Guide.

7 Press **Back** on the remote control to return to the previous window.

If there is a recording conflict, the Media Center displays a message and allows you to select which show you want to record.

Recording Manually

Recording a program manually allows you to select a specific date, channel, and recording time period. For some programs, you may want to begin recording before the scheduled beginning and after the scheduled ending of the program.

To manually record a show or series:

1 Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window.

2 Select **My TV**.

3 Select **Recorded TV**.

4 Select **Add Recording**.

5 Select the channel using the Channel/Page button on the remote.

6 Under the Create a custom recording with area, select **Channel and Time**. If the channel is incorrect, enter the correct channel with the numeric keys on your keyboard. Use the arrow buttons on the remote and **+/-** buttons on the screen to select the correct settings.

7 Select **Change Title** if you would like to name the manual recording. Enter letters by using the keys on your keyboard to name the recording, and then select **Save**.

8 Select **Record** to schedule the manual TV recording and return to the Recorded TV menu.

Changing Your Settings

The Media Center Settings option allows you to:

❖ Change settings for your television service provider

❖ Change settings for your Internet Service Provider

❖ Manually update the My TV Television Program Guide

❖ Check your remote control

❖ Change your ZIP Code to receive the correct Television Program Guide for your area

To change settings, on the My TV screen, click **Settings**.

This window allows you to change several settings that control how Media Center plays and records TV programs, as well as how it plays DVDs. In particular, you can change settings for:

❖ Recording a TV program, including manually recording

❖ The TV Guide

❖ The TV Signal

❖ Adjust display settings

❖ Audio settings

To make a change, click on the desired setting.

Changing recording priorities

If Media Center encounters a recording conflict between two series, then Media Center uses the series priorities list to decide which show to record. You can place the series you most want recorded high on the series priorities list to help ensure it is successfully recorded in the case of conflicts. When you schedule a new series it is added to the bottom of the list and has the lowest priority.

1   Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window.

2   Select **My TV**.

3   Select **Recorded TV**.

4   Select **Scheduled**.

5   Select **Series**.

6   Select **Change priorities**.

7   Use the up or down arrow on the screen to move a scheduled series up or down in the list of series priorities.

8   Select **Done** to save changes and return to the Schedule Series page.

Watching and Recording Movies

To watch or record a movie:

1   Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window

2   Select the movie that you want to watch or record.

3   Click **OK**.

❖   If the movie is playing now, click **Watch** or **Record TV movie on now**.

❖   If the movie is playing later, click **Record**.

Listening to Music

The My Music window in the Media Center works with Windows Media® Player to find and play your music files and CDs. You can use Windows Media Player to create your music library and then use Media Center to find and play your music using your remote control.

You can store your music files in the My Music folder or in other folders on your hard drive, however, you need to add those files to the Windows Media Player Library for Media Center to be able to find and play them.

In **My Music**, you can:

❖ Play music CDs — you can skip, shuffle, or repeat songs or albums

❖ Play digital music files from a music library you create and organize using Windows Media Player

❖ Search for music files by the following categories: album, artist, playlist, song, or genre

❖ View music CD details such as artist name, song title, length of song, and album cover art

❖ Play a music playlist with a slide show

Creating Your Music Library Using Windows Media® Player

Each time you add music files outside of Windows Media Player, you must use the Tools menu to add music files to your Windows Media Player Library. This will ensure that Media Center can find them.

To add music files:

1 Click **Start** on the taskbar, and then click **Windows Media Player**.

2 Click the **Library** tab at the top of the window. The first time you select the media Library, a message tells you that Windows Media Player needs to search your computer for your music files.

3 Click **Yes**. Windows Media Player searches for all available audio media and places them in the Media Library.

4 To add files from a CD to your Media Library, insert the CD, select **Copy from CD**, and then select **Copy Music** in the toolbar. You can select to copy your music files as MPEG Audio Layer 3 (.mp3) or Windows Media Audio (.wma) files.

5 Click the **Library** tab to see where your new audio files have been placed. You can rename files by selecting the file and typing a new name or genre over the old one. The way you label your music files determines the category in which they are placed.

Your added music files can now be found and played back using My Music in Media Center. You may need to close and open Media Center for the added music files to appear in My Music.

For more information about adding music files to the Media Library, use the Windows Media Player Help menu.

Deleting Music Files

To delete a file from the Windows Media Player Library, select the music file, right-click the mouse, and then select **Delete**.

Adding Music from Your Hard Drive to Windows Media Player Library

You can place all your music files into the My Music folder or into other folders on your hard drive, however, you need to add those files to the Windows Media Player Library for Media Center to be able to find and play them.

You may have already copied and organized your music files on your hard drive. If so, you need to add them to the Windows Media Player Library to access them with the Media Center.

To add music files that are stored in your My Music or Shared Music folder on your hard drive:

1 Click **Start** on the taskbar, and then click **Windows Media Player**.

2 Select **Search for Media Files** from the Library tab's **Tools** menu.
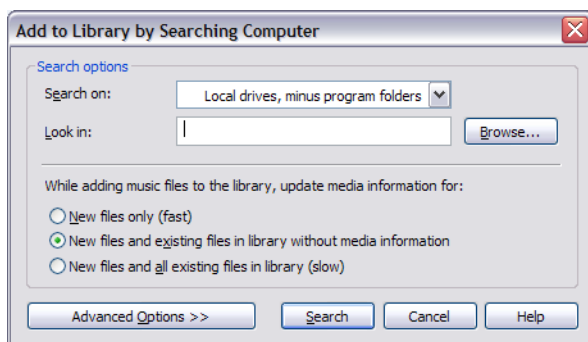
Sample Add to Library by Searching Computer screen

3 Select an option from the **Search on** drop-down menu.

4 Select **Search** to search all drives or select **Browse** to search through a specific drive.

5 Click **Search**. Windows Media Player searches the selected drives for all supported audio files and adds them to the Media Library.

If Windows Media Player does not recognize all of your audio files, try copying the files directly into Windows Media Player. Refer to Windows Media Player Help for more information.

Your music files can now be found and played in the My Music window in the Media Center. You may need to close and open Media Center for the added music files to appear in My Music.

Playing Digital Music Files

When you first open the Media Center and open the My Music window, you may not find any music files listed unless there is a music CD in your CD drive or unless you have already added audio files to your Windows Media Player Library.

If you do not have any music files listed, you need to add music files to the Windows Media Player Library, and then restart Media Center to play your music files in Media Center.

When you copy music files using Windows Media Player and your computer is connected to the Internet, the CD information is copied and displayed in Media Center and in the Windows Media Player Library.

To play a music CD using Media Center:

1   If you insert a CD when Media Center is not open, a message appears asking what you want to do. You can select **Windows Media Player** as your default audio player. If you have another program set as the default audio player, Windows opens this program and begins playing the CD.

2   Press the **Start** button on the remote control.

3   Insert a CD into the CD drive — the CD plays automatically in Media Center. If you have other media such as live TV already playing when you insert the CD,

Media Center asks you if you want to play the CD. Select
Yes to begin playing the CD.

NOTE   Media Center cannot be used to record music files. Use
Windows Media Player to record music files.

Finding Music Files in My Music

After you have added and organized files in Windows Media
Player Library, you can browse through your music files in
the My Music window. You can search for music files by
album title, artist, playlist, song title, or music genre. You can
also use the search feature to quickly find a specific song,
album, or artist.

To find a music file:

1   Press the **Start** button on the remote control to start the
Media Center and to open the Media Center main
window.

2   Select **My Music**.

3   Select **Albums**, **Artists**, **Playlists**, **View Songs**, or
Genres to display a list of all items in that category. In
these windows, you will have other options, depending
on the category you select.

   or

   Select **Search**. Use the keys on your keyboard to enter a
descriptive word, song title, or artist name. Media Center
displays a list of all the titles that match your entry.

4   Use the arrow keys to select a music file, press OK on the remote, and then press **Play** on the remote control to begin playing that music file.

NOTE   If you back up music files from a CD using Windows Media Player, you must log the files into the Media Player's play list before you can play them using the Media Center. To log the files into the play list, open Windows Media Player, press F3 and log the files in the Add to Library by Searching Computer dialog box. For more information, see "Adding Music from Your Hard Drive to Windows Media Player Library" on page 205.

Playing a Song

You can play a song from anywhere in My Music. You can select it from the View Song list, or from the Album, Artist, and Genre lists.

You can also play a single song from a playlist as follows:

1   Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window.

2   Select **My Music**.

3   Select **Songs**. The program displays all the songs in your media library.

4   Use the arrow buttons to select a song, and then press **OK** or **Play** on the remote control to play it.

5   Use the controls at the bottom of the screen to stop or pause the song, advance to another song, or increase or decrease the volume.

Setting Up an Automatic Disc Jockey

You can select to have Media Center randomly play all the available songs in one genre:

1 Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window

2 Select **My Music**.

3 Select **Genres**.

The list displays all the genres available in your Media Library.

4 Use the arrow buttons to select a genre, and then press **OK** on the remote control.

5 Use the arrow buttons to select **Shuffle**, and then press **OK** on the remote control.

All songs in that genre are randomly played.

Finding and Playing an Album

1 Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window.

2 Select **My Music**.

3 Select **Albums**.

4 Use the arrow buttons to select an album, and then press **OK** on the remote control. Media Center begins to play the album and displays the Now Playing screen.

Use the options on this screen to perform the following tasks:

❖ **View Cover** (this is the default option)

❖ **View Queue** (view a list of all tracks on the album)

❖ **Shuffle** (rearrange the play order of the music tracks on the album)

❖ **Repeat** (play the album again)

❖ **Play** (play the selected album)

When you select Play, the Now Playing window opens, and the album starts playing.

❖ **Buy Music** (connect to the Internet, find CD information, and buy music CDs)

To go back to Media Center, press **Start** on the remote control.

❖ **Visualize** (view an image)

❖ **Edit Queue** (edit the songs in the queue)

5 Press **Back** on the remote control to return to the previous window.

NOTE   In the Albums window, select View by list or View by cover to organize your albums.

Creating a Playlist

A playlist is a customized list of digital music files. Using playlists, you can group various digital music files together and determine the order in which you want the files to play. You can create a playlist that includes several tracks from various CDs or even a playlist that contains background music for a slide show.

Use Windows Media Player to create playlists and then play them back using Media Center.

To create a playlist:

1 Click **Start** on the taskbar and select **Windows Media Player**.

2 Click the **Library** tab.

3   Left click the **Now Playing list** menu on the right side of the screen.

4   Select **New List**, then **Playlist**.

5   Drag the music files to the right side of the Media Player window. You can also select the music file and click the **Add selection to the current list** icon.

6   Left click the **Now Playing list** menu and select **Save Playlist As**. Enter the name of the Playlist in the Save as window, and click **Save**.

7   Select your playlist to view the music files that you have added.

8   Close Media Center, if open, and then press the **Start** button on the remote control. Your playlist will not appear in My Music unless you close and open Media Center.

You can now play your playlist in Media Center.

Displaying Your Pictures
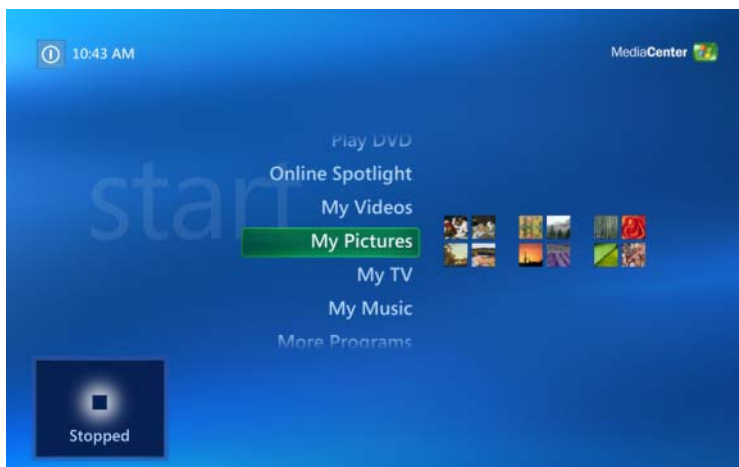
Sample Media Center main screen

In **My Pictures**, you can:

❖   View pictures individually or as a slide show

❖   Change transition time and display order of the pictures in your slide show

❖   Sort pictures by name or date

❖   View and scroll through pictures that are in the My Pictures folder by using your remote control or your keyboard and mouse

Sample My Pictures screen

After you organize your pictures in the My Pictures folder in Windows Explorer, open Media Center to view your pictures:

1   Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window.

2   Select **My Pictures**. The right side of the window shows a small picture image (thumbnail) and, if you have organized your pictures into folders, folder icons.

Your pictures are displayed just as you organized them in the My Pictures folder in Windows Explorer.

3 Use the arrow buttons on the remote control to move through your picture files and folder files and select a picture.

4 Press **OK** to select a picture or folder to view. The selected picture opens in full screen mode.

Viewing a Slide Show

To view pictures as a slide show:

1 Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window.

2 Select **My Pictures**.

3 Use the arrow buttons on the remote control to select the folder of pictures you want to view as a slide show, and then press **OK**.

4 Use the left and right arrow buttons on the remote control to go to the next or the previous picture manually or use the arrow buttons to select **Play Slide Show**, and then press **OK** to display your pictures automatically.

If you do not select the pictures you want to view as a slide show, Media Center uses the first folder listed. If you have picture files that are not stored in folders you created, Media Center plays all files stored in the My Pictures folder.

Sorting your Pictures

To organize your pictures by date or by name:

1 Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window.

2 Select **My Pictures**.

3 Select **Sort by Date** or select **Sort by Name**.

Watching Your Digital Movies

The My Videos window in the Media Center makes it easy to play home video files you created or video files you downloaded from the Internet.

Sample Media Center main screen

In **My Videos** you can:

❖ Browse through and play back all of your digital video files using the remote control or the keyboard and mouse

❖ Sort videos by name or date

❖ View your videos in full screen mode or from an inset window in Media Center

Organizing Your Videos

When you attach a digital video camera to your computer, Windows asks you how you want to capture your video. You can choose from various software programs to capture and then edit your video file. Most programs automatically save your file to the My Videos folder in Windows Explorer.

If not, move your videos into the My Videos or Shared Videos folder in Windows Explorer for Media Center to be able to find and play them.

Once you have placed all your videos into the My Videos or Shared Videos folder, you can rename, add, delete, and organize them into folders.

To organize and store your videos, click **Start** on the taskbar, click **My Documents**, and then double-click the **My Videos** folder.

If you want to share your videos with others, place them in the Shared Video folder. To do this, click **Start** on the taskbar, click **My Documents**, click the **Shared Documents** folder under Other Places, and then double-click the **Shared Video** folder.

You can add, delete, edit, rename, and organize your video files into folders you create in the Shared Video folder.

Your videos can now be played in Media Center.

Playing Digital Videos

After you organize your videos in the My Videos or Shared Videos folder in Windows Explorer, open Media Center to watch your videos.

1 Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window.

2 Select **My Videos**. The right side of the window shows small images of your video files and folder icons, if you have organized your videos into folders.

3 Use the arrow buttons on the remote control to move through and select your video or video folder.

4   Press the **OK** button on the remote control.

The selected video plays in full screen mode, or the folder opens displaying a list of video files. Use the mouse to resize the window if you want to watch your video while doing something else on your desktop.

5   When the video is finished, select **Restart** and then press **OK** to replay the video. You can also select **Done** and press **OK** to close the file and return to the My Videos window.

Playing a Video in Full Screen Mode

1   Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window.

2   Select **My Videos**.

3   Select **My Videos** or **Shared Video**.

4   Use the arrow buttons to select the folder you want, and then press **OK**. Select the video file and press **OK** again. Your video plays in full screen mode.

5   Press **Back** on the remote control to exit full screen mode and return to the previous window.

Sorting Videos

To organize your videos by date or by name:

1   Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window.

2   Select **My Videos**.

3   Select **My Videos** or **Shared Video**.

4   If your videos are organized within other folders, use the arrow buttons to select the folder you want to sort, and then press **OK**. If you do not select a folder, the Media Center sorts all the files and folders.

5   Select **Sort by date** or **Sort by name**.

Watching a DVD

Watching DVDs in the Media Center allows you to control the playback with your remote control. If you select to play your DVD in another program, the use of some of the remote control buttons is not supported.

Sample Media Center main menu

To play a DVD movie in Media Center:

1   Insert the DVD into the drive. If you have other media playing, Media Center asks if you want to play the DVD. Select **Yes** or **No**. If you do not select an option, the DVD automatically plays in full screen mode after a few seconds. If no media is playing, click Play DVD.

2   If a DVD menu appears, use the remote control or the mouse to select the DVD menu items and control the DVD movie playback.

3   Press **Stop** on the remote control to stop playing the DVD.

4   To change the window size, move the mouse and click the **Resize** button on the taskbar of the DVD window.

Stopping a DVD Movie

1 Press the **Stop** button on the remote control to stop the movie.

2 Use the arrow buttons on the remote control to select an item on the Stopped menu, and then press **OK**.

❖ Select **Resume** to begin playing the DVD where you left off.

❖ Select **Restart** to begin playing the DVD at the beginning.

❖ Select **Title Menu** to go to the DVD main menu, if available.

❖ Select **DVD Languages** to change the language for the DVD soundtrack, subtitles, and menu.

❖ Select **Eject** to eject a disc.

Playing a DVD movie already in your drive

If you already have a DVD movie in your drive, but you have been doing other things in Media Center or in other programs from your desktop, you can play the DVD by:

1 Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window.

2 Select **Play DVD**. The DVD movie begins playing in full screen mode.

Changing the Media Center Settings

In the Media Center Settings window, you can change
settings for watching television, for viewing your pictures
and slide shows, and for controlling sound and the display of
all the Media Center windows.

Sample Media Center Settings screen

The following section describes some of the more common
settings that a user might want to change. For specific
information about settings not covered in this section, please
see Windows Media Center Help, available at the top of any
Media Center screen.

Changing General Settings

General settings affect each user's experience in Media
Center and can be changed only by the administrator of the
computer.

1   Press the **Start** button on the remote control to start the
Media Center and to open the Media Center main
window.

2   Select **Settings**.

3 Select **General**.

The General Settings screen includes the following options:

❖ Select **Startup and Window Behavior** to change Media Centers startup and window behavior, for example, you can elect to start Media Center when Windows starts.

❖ Select **Visual and Sound Effects** to turn transition animations or navigation sounds on or off. Use the arrow buttons to select the item to change, and then press **OK** on the remote control. Select **OK** in the window, and then press **OK** again.

❖ Select **More Program Options** to allow applications in More Programs to control the media experience in Media Center or access media information from Media Center.

❖ Select **Media Center Setup** to run the Media Center Setup wizard again, or perform specific tasks performed by the wizard, such as set up your internet connection, tv signal, speakers, and so on. You can also join a wireless network and restore start page defaults from this screen.

❖ Select **Parental Control** to set passwords, movie ratings, and other controls.

❖ Select **Automatic Download Options** to change your download settings (Download when connected, or Manual download)

❖ Select **About Media Center** to view information about the Media Center's software version, terms of service, and data provider credits.

❖ Select **Privacy** to change settings for how the computer retrieves and stores media information.

4 Press the **Back** button on the remote control to return to the main Settings window.

Changing TV Recorder Settings

The TV Recorder settings allow you to control your recording priorities and options in Media Center.

1 Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window.

2 Select **Settings**.

3 Select **TV**.

4 Select **Recorder**.

❖ Select **History** to check a list of scheduled recordings, delete scheduled recordings, resolve recording conflicts, and to change recording priorities for the programs you scheduled to record.

❖ Select **Recorder Storage** to check the amount of recording space on your hard disk. Also, you can change the settings that affect the recording storage space.

❖ Select **Recording Defaults** to change the general recording default settings that affect how and when your programs are recorded.

5 To change the TV/DVD settings on Recorded Storage or Recording Default screens, use the arrow buttons to select an option, and then press **OK** on the remote control. Use the arrows to select Save on the screen. Then press **OK** on the remote control again to enter the changes.

6 Press the **Back** button on the remote control to return to the main Settings menu.

About Recorded TV Storage Space Settings

The space available for recording TV programs depends on your hard disk allocation, drive size, and default recording quality selections. Your computer requires a certain amount of space to run your Windows XP operating system, run software programs, and store data files. If your hard disk becomes full, it may affect your computer's speed and performance. You may need to free up storage space to record more programs or to optimize your computer's performance.

To increase disk space, you can:

❖ Delete recorded shows from the Recorded TV window. For more information, refer to "Recording TV tips" on page 199.

❖ Increase the percentage of hard disk space available for recorded TV shows in Default Settings. Select between 5 percent and 90 percent. The default is set at 75 percent.

❖ Record TV programs to the largest drive. Media Center does not support removable drives, network drives, or drives with less than 5 MB of disk space.

❖ Archive TV programs to a DVD if your computer has a DVD writer drive. You can play archived programs recorded on DVDs only from the computer that you recorded the TV program from.

❖ In the Recorder Defaults window, select **Fair** as the default recording quality. The better the quality of the recording, the more space the file takes.

❖ In the Recorder Defaults window, select **Until I watch** as the Keep setting for each recorded show.

Change TV Guide Settings

In the Guide Settings, you can select which channels to display and you can manually update your Guide from the Internet.

TV Guide settings are the same for each user and can be changed only by the administrator of the computer.

To change the TV Guide settings:

1 Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window.

2 Select **Settings**.

3 Select **TV**.

4 Select **Guide**.

   ❖ Select **Edit Channels** to add or remove a channel from the Guide.

   ❖ Select **Add Missing Channels** to add a TV channel that is missing from the Guide.

   ❖ Select **Setup Guide Listings** to show or hide channels that appear in the Guide. To show a channel, select the channel check box. To hide a channel, clear the check box.

   ❖ Select **Get Latest Guide Listings** to manually update the Television Program Guide from the Internet. Media Center connects to the Internet. This may take a few minutes to update.

   ❖ Select **Guide Terms of Service** to view the Guide's terms of service statement.

   ❖ Select **About Guide Listings** to find out general Guide information and the date range of your current Television Program Guide.

5   Use the arrow buttons to select an option, and then press **OK** on the remote control. Make required changes, if any.

6   Press the **Back** button on the remote control to return to the TV Settings window.

Changing Parental Controls for TV Viewing

Only the administrator of the computer can change the Parental Control setting. This feature may not be available on your computer.

1   Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window.

2   Select **Settings**.

3   Select **General**.

4   Select **Parental control**. The first time you select Parental control, Media Center asks you to create a password. Use the numeric keys on your keyboard to enter your password.

5   Select **Movie/DVD Ratings**.

Sample General Settings Parental Controls screen

6 Use the arrow buttons to select Turn on movie blocking, and then press **OK**.

7 Use the arrow buttons to select **Block** unrated movies, and then press **OK**.

8 Use the arrow buttons to select the + or - area. Press the **OK** button on the remote control to scroll through the movie rating levels. When you find the one you want, use the arrow buttons to select **OK** in the window, and then press **OK** on the remote control to enter settings and return to the DVD settings window.

9 Press the **Back** button on the remote control to return to the main Settings window.

Changing DVD Movie Language

To select DVD language settings for subtitles, closed captioning, and viewing the DVD:

1 Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window.

2 Select **Settings**.

3 Select **DVD**.

4 In the DVD Settings window, select **DVD Language**.

5 Use the arrow buttons to select the + or - buttons. Press the **OK** button on the remote control to scroll through the languages available. When you find the one you want, use the arrow buttons to select **OK** in the window, and then press **OK** on the remote control.

6 Press the **Back** button on the remote control to return to the main Settings window.

Selecting Close Captioning

The audio settings window allows you to select closed captioning. Close captioning displays the TV's spoken audio in text format for those who are unable to hear the audio.

To select close captioning:

1 Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window.

2 Select **Settings**.

3 Select **TV**.

4 Select **Close Captioning**.

5 Use the arrow buttons to select the + or - buttons. Press **OK** on the remote control to scroll through the choices available.

    ❖ **Captioning**: Select CC1 or CC2.

    ❖ **Caption Display**: You can select to turn close captioning On, Off, or On when mute.

6 Use the arrow buttons to select **Save** in the window.

7 Click **OK**.

Changing Picture Settings

Each user can set his or her own picture settings.

1 Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window.

2 Select **Settings**.

3 Select **Pictures**.
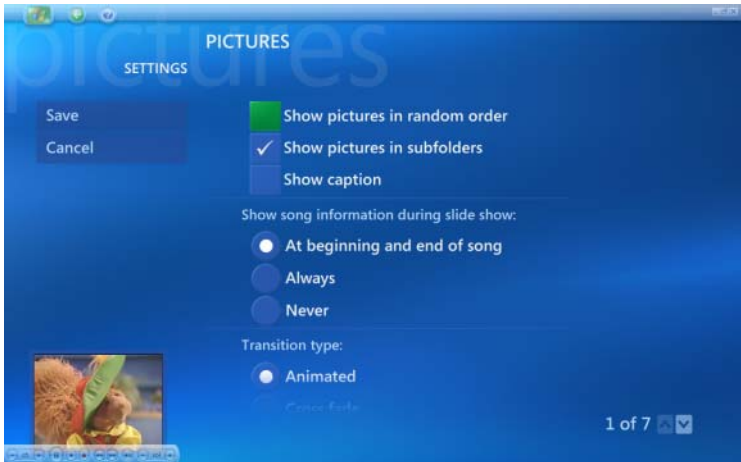
Sample Picture Settings screen

4 Use the arrows and OK button on the remote control to select or deselect options.

5 Select **Save**.

6 Click **OK**.

More Programs

Sample Media Center main screen

Use the options on the More Programs screen, available from the Media Center's main menu, to perform the following tasks:

❖ Select **Create CD/DVD** to create a CD or DVD.

❖ Select **InterVideo** to view and adjust the **InterVideo Video & Audio Settings** screen.

❖ Select **Messenger** to sign into Media Center's Messenger program.

❖ Select **Sync to Device** to sync with pocket computers and other data devices.

For more information about the options, please see Media Center help available at the top of each Media Center screen.

Sample More Programs main screen

Online Spotlight

Use the Online Spotlight screen, available from Media Center's main screen, to purchase and download music, DVDs, and movies, and read news and sports stories.

Tips on Media Center are also available for viewing from this screen.

Getting Help for Media Center

Click the Help icon at the top left of the screen to access Media Center's Help screen, which includes a number of links to helpful information on Media Center, as well as help for hardware problems.

Sample Media Center main Help screen

Chapter 6

Toshiba Utilities

Your computer includes several utilities designed to help you to reconfigure your system to best meet your individual needs. Together, these allow you to determine certain system details, set additional options, or change default options. This chapter describes the utilities supplied by Toshiba:

❖ Fn-esse®

❖ Hotkey Utility

❖ TOSHIBA Assist

❖ PC Diagnostic Tool

❖ Power Management

❖ Mouse Utility

❖ Accessing TOSHIBA HW Setup

❖ TOSHIBA Zooming Utility

❖ Toshiba Picture Enhancement Utility

❖ CD/DVD Drive Acoustic Silencer

❖ TOSHIBA Accessibility

❖ Setting passwords

Fn-esse®

Desktop shortcuts and Toshiba's Fn-esse program provide quick ways to open programs, documents, and folders from within any Windows® program without using the Start menu. For more information on creating desktop shortcuts, refer to the operating system documentation that came with your computer.

This section describes how to use the Fn-esse program to quickly access your programs and files.

With Fn-esse, you can assign an Fn key combination to:

❖ Open a Windows® XP operating system program

❖ Open a file in its associated program

❖ Display a customized folder of programs and/or files from which to choose

Fn-esse also has several keys, known as hot keys, that perform preassigned operations. For more information, see "Hot Keys" on page 312.

You can assign any key that is not associated with a hot key or a keyboard overlay.

Starting Fn-esse®

1 Click **Start**, point to **All Programs**, **Toshiba**, then **Utilities**, then click **Fn-esse**.

The Fn-esse keyboard appears.

Sample Fn-esse screen

The keys are color-coded as follows:

❖ Available keys are dark gray with white letters.

❖ Assigned keys and keys associated with a popup list are shown on the Fn-esse keyboard in the selected color.

❖ Unavailable keys are light gray.

There are two ways to assign a key to open a program or document:

❖ Using drag-and-drop

❖ Using the keyboard or pointing device

The method most often used is drag-and-drop.

Using drag-and-drop to assign a key

To assign a key to a program or document:

1 Start both Fn-esse and Windows® Explorer (or the program supporting drag-and-drop).

2 Resize the Explorer window so that you can see both the Fn-esse keyboard and Explorer at the same time.

3 In the Explorer window, highlight the program or document file you wish to assign to a key.

4 Click and hold the primary button as you drag the highlighted item from Explorer to the key on the Fn-esse keyboard to which you want to assign it.

5 Release the primary button.

Fn-esse displays the Add/Edit Command dialog box with the Description, Command Line, and Working Directory fields automatically completed.

6 Click **OK** to close the Add/Edit Command dialog box with your key assignment in place.

The program or document is now associated with the key you just selected. To open the program or document, press Fn plus the appropriate key from within any Windows program.

Using the keyboard or pointing device to assign keys

To assign a key to open a program or document:

1 Start Fn-esse.

2 Perform one of the following:

❖ Using the keyboard, press and hold the Fn key, then press the desired assignment key.

❖ Using the pointing device, move the cursor over the desired key in the Fn-esse window and press the secondary button.

The Assignment Type dialog box appears.

Sample Fn-esse assignment type dialog box

Follow the instructions in the or .

Making a direct key assignment

To make a direct key assignment, select **Direct** to display the Add/Edit Command dialog box, then complete these steps:

1 Enter the Description, Command Line, and Working Directory for the new Fn-esse key assignment, or click the **Browse** button to specify this information.

2 Click **OK**.

Making a popup assignment

To make a popup assignment, select **Popup** to display the Application Explorer dialog box, then complete these steps:

1 Select the desired folder. The left side of the Application Explorer window displays the folders in the Programs menu. The right side lists the programs and documents in the folder. These are the items that will appear in the popup list.

2 To create a popup list with items from various folders, or to pick only a few items from a folder, create a new folder containing only the desired programs and documents. If you are unsure how to do this, refer to your operating system documentation.

3 Click **OK** to associate the folder with the key you just selected.

To open a popup list showing the items in that folder, press Fn plus the appropriate key from within any Windows® program.

Viewing existing key assignments

To view the existing key assignments, choose **Assignments** from the Fn-esse keyboard. Fn-esse displays the Function Key Assignments dialog box. This box lists all the key assignments and the program or document to which each key is assigned.

To view items in a popup list, select the **Expand popup lists** check box.

Changing or removing existing key assignments

1 On the Fn-esse keyboard, click the key you wish to change with the secondary button.

Fn-esse displays the Assignment Type dialog box.

2 To change the key assignment, click **Direct** or **Popup** and continue as if you were creating a new assignment.

3 To remove the key assignment, click **Clear**.

Hotkey Utility

The hotkey utility allows you to receive a confirmation message when you use the hotkey combination for Stand By [Fn+F3] and Hibernation [Fn+F4].

To activate:

1 Click **Start**, **All Programs**, **Toshiba**, **Utilities**, then click the **Hotkey utility**.

The Toshiba Hotkey window appears.

Sample Toshiba Hotkey utility window

2 Put a check mark next to the desired option.

3 Click **OK**.

TOSHIBA Assist

The TOSHIBA Assist provides quick access to computer functions and allows you to customize a range of computer settings.

To access this utility:

1 Click **Start**, **All Programs**, **Toshiba**, **Utilities**, then click **Assist**.

The TOSHIBA Assist window appears.

Sample TOSHIBA Assist window, Connect tab

The TOSHIBA Assist offers four categories of options:

❖ Connect

❖ Secure

❖ Protect & Fix

❖ Optimize

Connect

The options available in this category are:

❖ ConfigFree (see "Using ConfigFree™ with your Toshiba Computer" on page 320)

❖ Start Bluetooth (see "Using the optional Bluetooth™ module" on page 146)

❖ Bluetooth Settings

❖ Bluetooth Local COM Settings

Secure

The options in this category are:

❖ Supervisor password (see "Setting passwords" on page 251)

❖ User password (see "Setting passwords" on page 251)
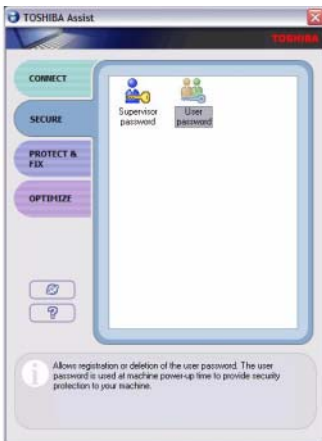
Sample TOSHIBA Assist window, Secure tab

Protect & Fix

The option available in this category is the PC Diagnostic Tool.
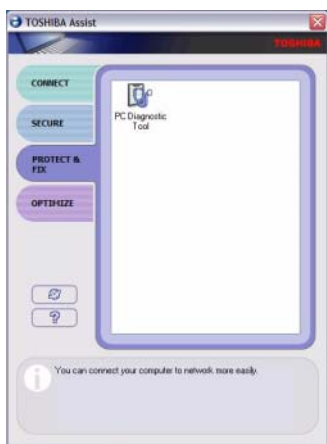
Sample TOSHIBA Assist window, Protect & Fix tab

Optimize

❖ Hotkey Utility

❖ Power Management

❖ SD Memory Card Format

❖ Mouse Utility

❖ TOSHIBA Zooming Utility

❖ Toshiba Picture Enhancement Utility

❖ CD/DVD Drive Acoustic Silencer

❖ TOSHIBA Accessibility

Sample TOSHIBA Assist window, Optimize tab

SD Memory Card Format

This utility is used to format SD cards used with the Bridge Media Adapter Slot.
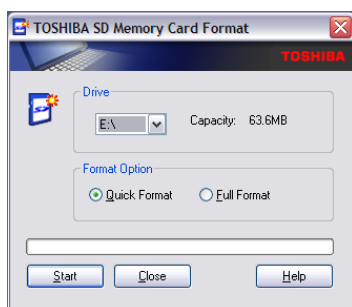
Sample SD Memory Card Format screen

PC Diagnostic Tool

This utility can help diagnose problems with devices in your computer. Refer to the online help documentation within the application for any additional help.

To start the utility, click **Start**, **All Programs**, **Toshiba**, **Utilities**, and click **PC Diagnostic Tool**.
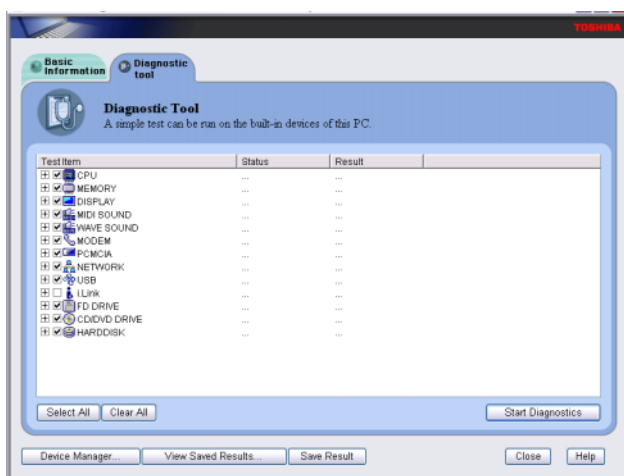
Sample PC Diagnostic Tool screen

Power Management

NOTE	Toshiba recommends that you use the Toshiba Power Management Utility to change system power settings.

The Power Management utility enables you to control your computer's power usage, regardless of the source, and use the many preset power modes, or create one yourself.

To access Power Management through TOSHIBA Assist, click the **Power Management** icon.

The TOSHIBA Power Saver Properties window appears.
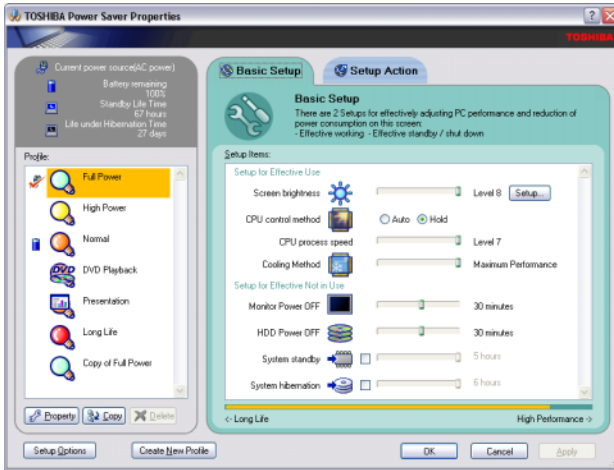
Sample TOSHIBA Power Saver Properties screen

The Profile panel on the left of the TOSHIBA Power Saver Properties screen shows the power usage for both AC power and battery power.

You can either use one of the preset profiles or create and use your own customized mode. The preset profiles cannot be deleted.

By changing the options that appear in the Toshiba Power Saver Properties window and clicking **OK**, you can reconfigure that function. Any options that you change become effective when you click either **OK** or **Apply**.

Power Usage Profiles

This section lists the preset profiles along with the estimated battery life for each mode. The preset profiles are:

❖ Long Life

❖ Normal

❖ High Power

❖ DVD Playback

❖ Presentation

❖ Full Power

Although you can change the properties for any of these profiles, this is not recommended. If you need a customized profile, create a new profile with the properties you require.

The DVD Playback profile applies only when a DVD program is playing while running the computer on battery power and using InterVideo WinDVD™.

Quickly creating a new power mode

1 Highlight one of the preset profiles.

2 Click **Copy**.

3 A new profile appears with the title "*Copy of Name*" where *Name* is the title of the profile you copied.

4 To rename the profile, click the **Property** button.

5 Type the name for your new profile, and then click **OK**.

Customizing a power mode

1 Highlight the profile on the Profiles window.

2 Make the desired changes to settings on the Basic Setup page and the Setup Action page.

3 Click **Apply**.

4 Click **OK**.

Mouse Utility

The Mouse utility allows you to change your TouchPad or mouse settings. To access the Mouse utility through the TOSHIBA Assist, click the **Mouse** icon.

Accessing TOSHIBA HW Setup

TOSHIBA HW Setup is the Toshiba configuration management tool. To access it, press the TOSHIBA Assist button above the left side of the keyboard.

The TOSHIBA Assist screen appears.

Click Optimize and double-click on the HW Setup icon to open the HW Setup dialog box.
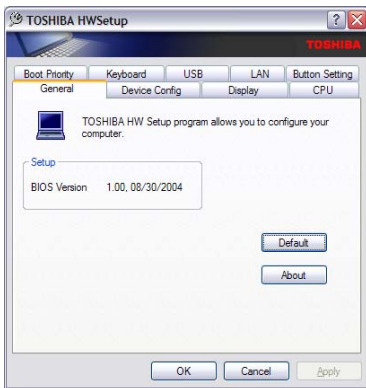
Sample TOSHIBA HWSetup tab options

Toshiba HW Setup has the following tabs:

❖ General—Allows you to view the current BIOS version or change certain settings back to their default values

❖ Device Config—Shows the Device configuration options

❖ Display—Allows you to change various default settings for the built-in LCD display

❖ CPU—Allows you to change the dynamic CPU frequency mode

❖ Boot Priority—Allows you to change the sequence in which your computer searches the drives for the operating system

❖ Keyboard—Allows you to configure an external PS/2 keyboard to emulate the Fn function key and access the wake-on keyboard function

❖ USB—Allows you to enable or disable USB Legacy Emulation

❖ LAN—Allows you to set networking functions

❖ Button Setting—Allows you to set conditions for the Power Button

By changing any of the options that appear in the dialog boxes and clicking **Apply**, you can reconfigure that function. Any options that you change become default settings when you restart your system.

TOSHIBA Zooming Utility

This utility allows you to zoom in and zoom out of applications. You can make this utility work on all applications or specific applications. These are the options available to you:

❖ All applications

❖ All applications with icons on the desktop

❖ Microsoft® Internet Explorer, Microsoft® Office, Windows® Media Player, and Adobe® Reader (you can select one or more of these programs)

To access the utility, click **Start**, **All Programs**, **Toshiba**, **Utilities**, and then **TOSHIBA Zooming Utility**.

The TOSHIBA Zooming Utility screen appears.
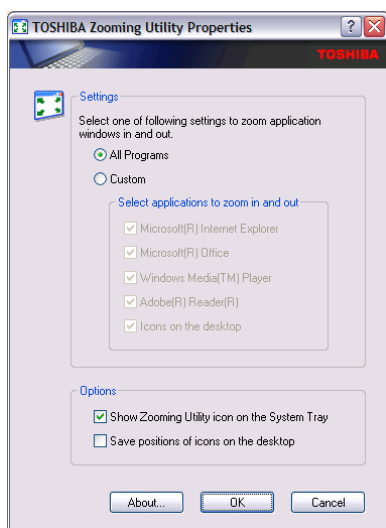
Sample TOSHIBA Zooming Utility screen

For more information about how to use the TOSHIBA Zooming Utility, right click on the ⬚ icon in the taskbar and click on Help.

Toshiba Picture Enhancement Utility

The Toshiba Picture Enhancement utility allows you to adjust your computer screen to maximize the ambient surrounding light. To access the Toshiba Picture Enhancement Utility, click Start, point to **All Programs**, **Toshiba**, then **Utilities**, then click **Picture Enhancement**.

Sample Toshiba Picture Enhancement Utility

Clicking the **Monitor Input Settings** button displays a screen for selecting external input settings for devices such as video cameras and games.
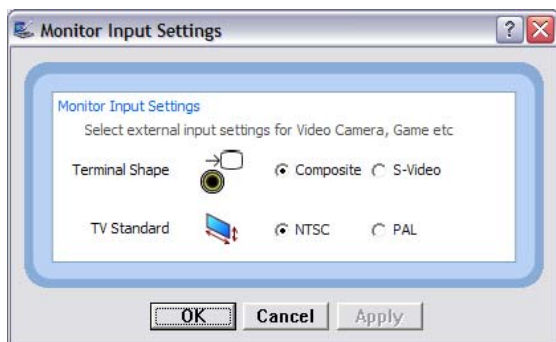
Sample Monitor Input Settings screen

CD/DVD Drive Acoustic Silencer
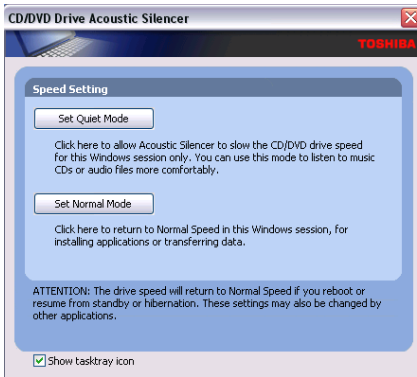
Sample CD/DVD Drive Acoustic Silencer screen

This utility, available on Toshiba Assist, can slow the speed of your optical drive to make it run more quietly. You can use this utility to make listening to Music CDs more enjoyable.

NOTE   The CD/DVD Drive Acoustic Silencer does not operate when running QosmioPlayer. Please use Windows Media Center or Media Player if you want to use the CD/DVD Drive Acoustic Silencer.

NOTE   When you change the CD/DVD drive to "Quiet" mode, the setting is only valid for the current Windows session. If you shut down, restart, log off, or resume from hibernation, the setting will revert back to Normal speed. The setting can also be changed by CD burning software or other applications that can set the drive speed.

To change the setting, open the Acoustic Silencer by double-clicking the tasktray icon.

1 Click **Set Quiet Mode** to make the drive run more slowly and quietly, for listening to Music CDs or Audio files on a CD.

2 Click **Set Normal Mode** to run the drive at normal speed, for transferring data.

TOSHIBA Accessibility
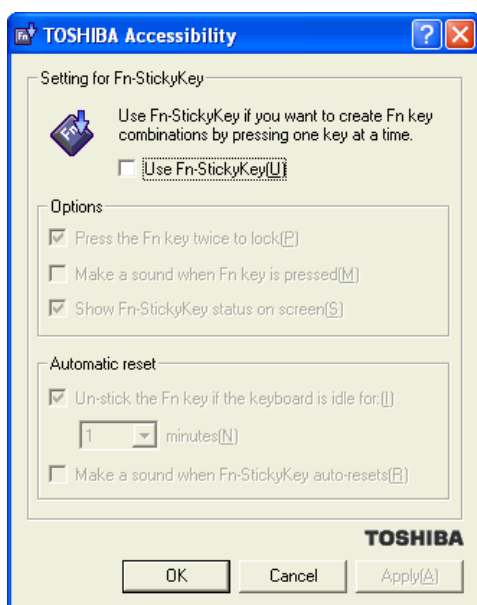
The Toshiba Accessibility window

The TOSHIBA Accessibility utility allows you to use the Fn key to create a hot key combination with one of the function keys without pressing the two keys simultaneously as is usually required. Using Accessibility lets you make the Fn key a *sticky key*, meaning you can press it once, release it, and then press a function key to activate the hot key function.

To open Accessibility:

1 Click **Start**, then click **All Programs**.

2 Select **Toshiba, Utilities**, then select **Accessibility**.

The TOSHIBA Accessibility window appears.

3 Check the **Use Fn-StickyKey** box.

4 Put a check mark next to the desired option.

Setting passwords

Setting a password lets you walk away from your computer, secure in the knowledge that nobody can access your files. When you set a password, you must enter the password before you can work on your computer again.

Toshiba supports several types of passwords on your computer:

❖ An instant password—Secures your open programs and files when leaving the computer temporarily (the user password supports this function).

❖ A supervisor password—Prohibits unauthorized users from accessing certain functions such as Toshiba Hardware Setup. This is useful if more than one person uses the computer.

When setting up the various passwords, keep the following in mind:

❖ The user password can be set up under the supervisor password.

❖ The supervisor password must be set before the user password, or the user password must be deleted and then re-entered after the supervisor password is set.

Using an instant password

An instant password secures your system with a single keystroke. Use this feature when you leave your desk for a few minutes and do not want to turn off the computer.

To use an instant password, press Fn, then press F1. An instant password has no effect on an optional USB mouse or trackball.

To unlock your system, press any key or the TouchPad and the Windows Logon screen will appear. Select your user name and enter your password, if any.

Using a supervisor or user password

A supervisor password prevents other users from changing hardware configuration options.

Setting a supervisor password

CAUTION | If you choose to set a supervisor or user password, Toshiba strongly recommends that you save your password in a location where you can later access it should you not remember it.

Toshiba is not responsible for any losses that may occur to you, your organization or others as a result of the inability to access the computer.

To register a password for the power-on password functions:

1 Click the **TOSHIBA Assist** icon on the desktop.

2 On the left side, select **Secure**.
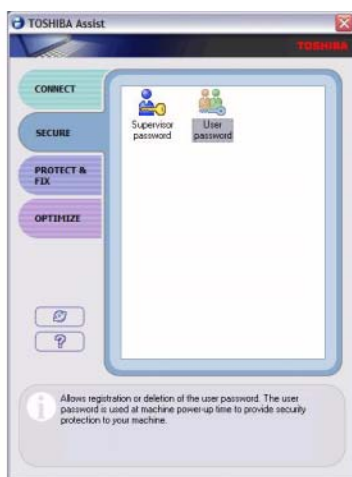
Sample TOSHIBA Assist Security window

3   Select the **Supervisor Password** icon.

4   Click **Set**.

5   Type your password in the **Input** box.

6   Retype your password in the **Input** again box.

7   Click **Set**.

8   Click **OK**.

Deleting a supervisor password

To cancel the power-on password function:

1   Click the **TOSHIBA Assist** icon on the desktop.

2   On the left side, select **Secure**.

3   Select the **Supervisor Password** icon.

4   Select **Verify by Password**.

5   Select the **Supervisor Password** tab.

6   Type the correct password.

7 Click **Verify**.

8 Click **Delete**.

9 Select **Verify by Password**.

10 Type the correct password.

11 Click **Verify**.

Setting a user password

CAUTION | Make sure you use a password you can remember easily. If you forget the User and Supervisor passwords, you will not be able to use the computer. Contact a TOSHIBA Authorized Service Provider for assistance.

To register a password for the power-on password functions:

1 Click the **TOSHIBA Assist** icon on the desktop.

2 On the left side, select **Secure**.

3 Select the **User Password** icon.

4 Click **Set**.

5 Type your password in the **Input** box.

6 Retype your password in the **Input** again box.

7 Click **Set**.

8 Click **OK**.

Disabling a user password

To cancel the power-on password function:

1 Click the **TOSHIBA Assist** icon on the desktop.

2 On the left side, select **Secure**.

3 Select the **User Password** icon.

4 Select **Verify by Password**.

5 Type the correct password.

6 Click **Delete**.

7 Click **OK**.

Chapter 7

Using the RAID-0 or RAID-1 Utility

Using RAID

RAID (Redundant Array of Independent Disks) is a utility that allows you to configure your computer to provide either improved performance in reading and writing data on the computer's internal hard disks or greater reliability in storing data on the computer's internal hard disks.

Your Qosmio™ G25 Series computer supports two types of RAID: RAID-0 and RAID-1.

Your computer can only be configured for one type of RAID at a time. It cannot be configured to use both RAID-0 and RAID-1 simultaneously.

Your computer comes ready to be configured for RAID-1; however, RAID-1 can be disabled or you can choose to install RAID-0.

RAID-0

RAID-0 provides improved performance in writing data to or reading data from your computer's internal hard disks.

RAID-0 is configured by creating an array which specifies the hard disks which striped data will be written to or read from. For your computer, you will create an array consisting of the computer's primary internal hard disk and secondary internal hard disk.

When a RAID-0 array is configured, data is written to the internal hard disks using a technique called **striping**.

The computer collects the data to be written until a specific amount of data has been collected. Then, the data is equally divided. One portion (stripe) is written to the primary hard disk. The other portion (stripe) is written to the secondary hard disk.

The two portions of data are simultaneously written to the hard disks. That way, a file that would take normally 30 seconds to write to a single hard disk would take approximately 15 seconds to write simultaneously to the two hard disks in the RAID-0 array.

The speed in reading data from the hard disks is also improved as data is simultaneously read from both hard disks. A file that would normally take 30 seconds to retrieve would take approximately 15 seconds to read from the RAID-0 array.

If you want to discontinue the process of striping, see .

RAID-1

RAID-1 improves reliability in storing data by automatically copying all data from your computer's primary internal hard disk to your computer's secondary internal hard disk.

If your computer's primary hard disk fails, you can replace the failed primary hard disk with the secondary hard disk that contains the mirrored data. See "Restoring a failed drive in a RAID-1 array" on page 279.

RAID-1 is configured by creating an **array** which specifies the hard disk to be copied, and the hard disk to which the data will be copied. For your computer, an array will consist of the computer's primary internal hard disk and the computer's secondary internal hard disk.

The process of copying data from the primary hard disk to the secondary hard disk is referred to as **mirroring**, and the array itself is referred to as a **mirror**. If you want to discontinue the process of mirroring, this is referred to as breaking a mirror. For more information, see "Breaking a RAID-1 array (mirror)" on page 276.

CAUTION | If both hard disk drives fail simultaneously, such as during a power failure, the mirrored data on the secondary hard disk may not be identical to the data on the primary hard disk.

To create a RAID-1 array, you must use a secondary internal hard disk with a capacity equal to or greater than that of the computer's primary internal hard disk. For example, if the primary internal hard disk is 40 GB, then the secondary internal hard disk must be 40 GB or greater.

When RAID-1 is configured, the operating system will display the smaller of the two hard disk drives defined in the array as the computer's total hard disk capacity. For example, when a RAID-1 array is configured with one 40 GB hard disk drive and one 80 GB hard disk drive, the computer's total hard

disk capacity will appear to the operating system as only 40 GB.

When you first start your computer

Each time you start your computer you will be prompted to configure your computer for RAID-1 until one of the following occurs:

❖ The computer is ready to enable for RAID-1. See the steps on the following page.

❖ The computer is configured for RAID-0. See for more information.

❖ The computer's secondary hard disk is partitioned and formatted using the Disk Management utility. See your Windows online help for more information.

CAUTION When configuring the secondary hard disk for RAID-1 support, all existing data on the secondary hard disk will be permanently erased and will not be recoverable. Toshiba is not responsible for any loss of data on the hard disk.

NOTE Your computer can only be configured for one type of RAID at a time. It cannot be configured to use both RAID-0 and RAID-1 simultaneously.

8 Plug in the AC adapter and power on the computer. (The computer must be running from power provided by the AC adapter to perform these steps.)

The New HDD detected window appears.

New HDD detected

New HDD detected.

Model: FUJITSU MHT2080BH
Capacity: 80 GB

Please select [Enable RAID] to start configuring mirroring using this disk.
Please press [Cancel], if the drive is to not be configured for mirroring.

[Enable RAID]   [Cancel]
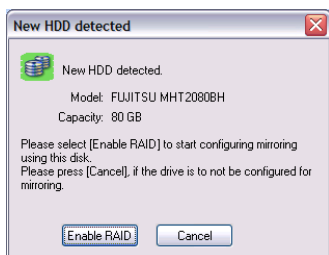
Sample New HDD detected window

9   To create a RAID-1 array, click **Enable RAID**.

The Confirm disk mirroring window appears.

Confirm disk mirroring

If this operation is performed, all data on the HDD2 will be lost. (Drives: Not exist)
Enable disk mirroring?

[OK]   [Cancel]
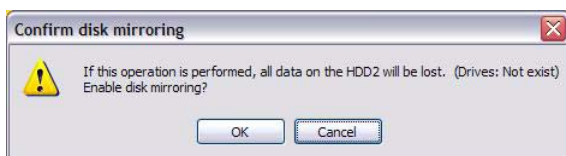
Sample Confirm disk mirroring window

10   Click **OK**.

The computer begins creating the array by copying data from the primary internal hard disk to the secondary internal hard disk.

NOTE   RAID-1 configuration takes approximately one hour to complete.

NOTE   If the operating system is shut down before the RAID-1 configuration is complete, the RAID-1 configuration will automatically resume when the computer is restarted.

Once the computer has been restarted you can continue to work while the configuration resumes.

Creating a new RAID-0 array

When RAID-0 is configured, the total hard disk capacity will appear to the operating system as twice that of the smaller of the two hard drives in the RAID configuration. For example, when a RAID-0 array is configured with one 40 GB hard disk and one 60 GB hard disk, the computer's total hard disk will appear to the operating system as 80 GB. You cannot use the remaining 20 GB on the larger hard disk drive.

CAUTION Before configuring your system for RAID-0, make sure you back up all data on your computer's hard drives onto another storage media. When a RAID-0 array is created, all data on both your primary and secondary hard disks is erased and cannot be recovered. Toshiba is not responsible for any loss of data on your hard disks.

NOTE Your computer can only be configured for one type of RAID at a time. It cannot be configured to use both RAID-0 and RAID-1 simultaneously.

To create a RAID-0 array:

1   Plug in the AC adapter and power on the computer. (The computer must be running on power provided by the AC adapter to perform these steps.)

2   Insert the Recovery DVD shipped with your computer into the computer's CD/DVD drive.

3   Press **F12** to display the boot menu.

4   Press the right arrow key until the CD icon is highlighted; then, press **Enter**.

The following menu is displayed:

```
Your machine supports Redundant Array of Independent Disks
(RAID). Please select the RAID level.

1. Factory Default
   Setup the computer ready to support mirroring function.
You can use RAID Utility to configure two hard disks to
become mirror of each other, in which the same data is
written on both hard disks. If one hard disk fails, the
system can still run from the other hard disk. Before using
RAID Utility, your second hard disk can still work as
independent hard disk.

Advance Setting (for Advance users only)
2. RAID-1 - Automatically configure two hard disks of your
computer to become mirror after recovery process is
completed.
   WARNING: You can not use the second hard disk for any
other purpose until you use RAID Utility to end mirroring.
3. RAID-0 - Automatically configure computer to support
striping function - data is broken into blocks and written
to both hard disks simultaneously to increase the hard disk
performance.

WARNING: IF ONE HARD DISK FAILS, ALL DATA IS LOST.
Enter selection:"
```

Sample Toshiba Recovery DVD RAID Menu

CAUTION   Before configuring your system for RAID-0, make sure you back up all data on your computer's hard drives onto another storage media. When a RAID-0 array is created, all data on both your primary and secondary hard disks is erased and cannot be recovered. Toshiba is not responsible for any loss of data on your hard disks.

5 Press **3** and then press **Enter** to select RAID-0.

NOTE   RAID-0 configuration takes approximately one hour to complete.

TOSHIBA RAID Console Utility

The TOSHIBA RAID Console utility provides a way to view and manage the RAID configuration on your computer and to check the status of the RAID array and physical drives. It also allows you to:

❖ Create or break a mirror, see "Breaking a RAID-1 array (mirror)" on page 276

❖ Perform a media check on an array, see "Performing a media check on a RAID-1 array" on page 273

❖ Define options for RAID-0 or RAID-1, see "Defining options for RAID-0 or RAID-1" on page 266

To access the TOSHIBA RAID Console:

1 Click **Start**, **All Programs**. Then select **TOSHIBA**, **RAID**, **RAID Console**.

The TOSHIBA RAID Console window appears.
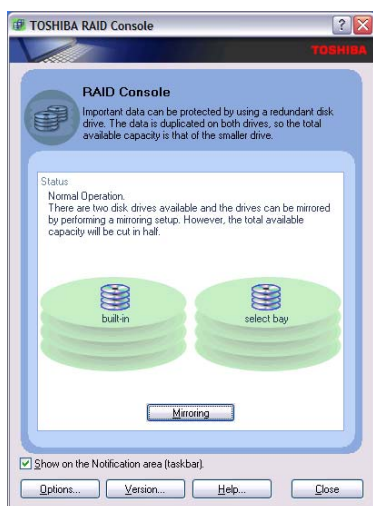
Sample TOSHIBA RAID Console Utility with no RAID configured

An icon ⬤ is shown for each RAID-1 array configured on the computer.

On each array icon, an icon ⬤ is displayed for each physical drive belonging to the array.

RAID-0

When RAID-0 (striping) is configured, a single array icon and two physical drive icons are shown to represent the array and the physical drives associated with the array. The plus sign indicates that data is simultaneously written (striped) to both the primary internal hard disk and to the secondary internal hard disk.
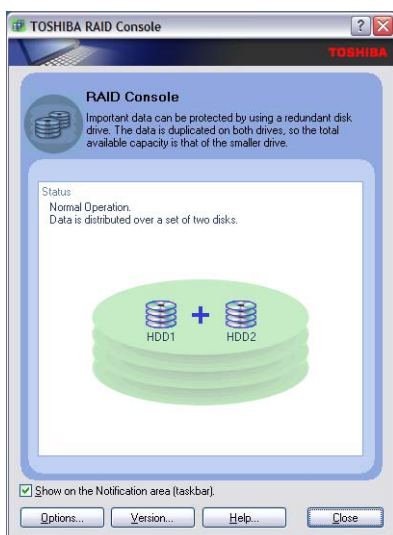
Sample TOSHIBA RAID Console Utility with RAID-0 configured

RAID-1

When RAID-1 (mirroring) is configured, a single array icon and two physical drive icons are shown to represent the array and the physical drives associated with the array. The equal sign indicates that the data is mirrored (copied) from the internal hard disk to the secondary internal hard disk.
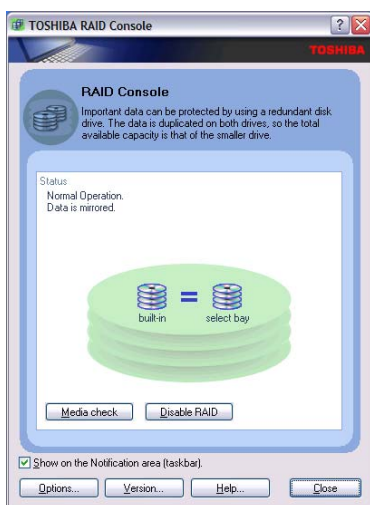
Sample TOSHIBA RAID Console Utility with RAID-1 configured

Defining options for RAID-0 or RAID-1

The Options window allows you to define options for media checking, rebuilding an array, and notification of RAID errors. It also allows you to enable or disable a write cache, MBR protection, and S.M.A.R.T. For more information on write cache or MBR protection, see page 9. For more information on S.M.A.R.T., see page 10.

To define options for RAID:

1 Start the TOSHIBA RAID Console utility by clicking **Start**, **All Programs**. Then select **TOSHIBA**, **RAID**, **RAID Console**.

2 Click **Options**.

The Options dialog box appears.
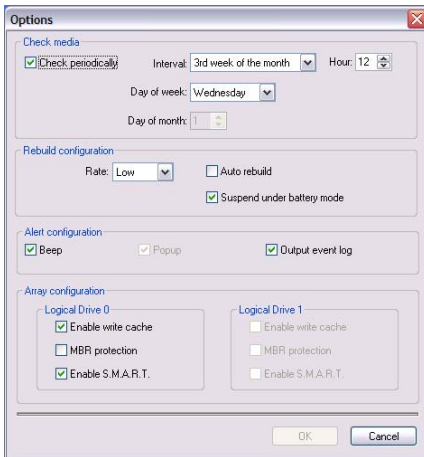
Sample Options window

❖ **Check media**—Allows you to enable and specify the frequency of automatic media checking.

❖ **Rebuild configuration**—Allows you to enable and set options for automatic array rebuilding.

❖ **Alert configuration**—Specifies whether RAID event messages are written to an event log (within the TOSHIBA RAID Console utility) or displayed on your computer's screen.

❖ **Array configuration**—Allows you to enable or disable a write cache, MBR protection, and S.M.A.R.T.

❖ **Enable write cache**—During mirroring, data is copied from the computer's hard disk to the secondary internal hard disk.

If write caching is disabled, data is copied from the computer's hard disk to the secondary internal hard disk one piece at a time.

If write caching is enabled, data is copied from the computer's hard disk to a temporary storage area (write cache). Then, the data is sorted and written to the secondary internal hard disk.

The hard disk drive's performance improves when write cache is enabled.

❖ **MBR Protection—**Protects the master boot record on your computer's hard disk by prohibiting data from being written onto the master boot record data area.

The master boot record is a special data area on the computer's hard disk which is read whenever the operating system is started.

CAUTION It is recommended that you enable MBR Protection. If the master boot record of the primary internal hard disk is lost or damaged, the operating system is unable to start. This would result in data loss and your hard drive would need to be rebuilt.

Contact a Toshiba Authorized Service Provider or Toshiba Global Support Centre for assistance. Within the United States call (800) 457-7777. Outside of the United States call (949) 859-4273.

NOTE MBR Protection can only be enabled if the RAID-1 array is designated as the boot drive.

❖ **Enable S.M.A.R.T.** — Detects predictable drive failures by monitoring the motor, head, and performance of the physical disk drives.
S.M.A.R.T. logs a record in the Windows Event Viewer when performance of a physical drive is below specification values. See your Windows operating system

online help for information on using Windows Event Viewer.

You can also check the status of a hard disk drive on the TOSHIBA RAID Console. See "Viewing the status of a hard disk drive" on page 271 for more information.

CAUTION Drive lifetime is not always accurately predicted using information from S.M.A.R.T. To avoid loss of data, it is recommended that the hard drive be replaced immediately after receipt of a S.M.A.R.T. warning.

NOTE You can view the status of a hard disk drive on the TOSHIBA RAID Console. See "Viewing the status of a hard disk drive" on page 271 for more information.

3 Make the appropriate selections.

4 To apply the settings, click **OK**.

Viewing the status of an array

To view the status of an array:

1 Start the TOSHIBA RAID Console utility by clicking **Start**, **All Programs**. Then select **TOSHIBA**, **RAID**, **RAID Console**.

2 Double-click the array icon.

The Array information window appears.
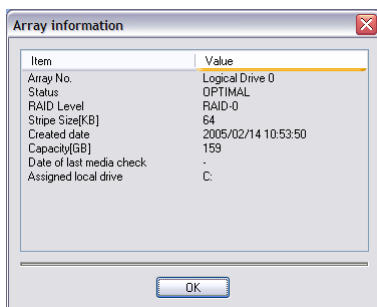
Sample Array information window

❖ **Array No.** Identification number of array.

❖ **Status**—Indicates the status of the array. The contents which will be displayed are as follows:

    ❖ **Optimal**—The physical drives in the array are connected with the computer, are online, are in optimal status, and are not in the process of rebuilding data.

    ❖ **Degraded**—One of the physical drives in the array is not connected with the computer, is not in optimal status, or is in the process of rebuilding data.

    ❖ **Critical**—One of the physical drives has been disabled from use as part of the array.

❖ **RAID level**—Displays the RAID level for the array.

❖ S**tripe size**—Displays the size of the segment written onto each hard disk in the RAID-0 array.

❖ **Created date**—Shows the date and time the array was created.

❖ **Capacity**—Displays the maximum size of the array.

NOTE   When RAID-0 is configured, the total hard disk capacity will appear to the operating system as twice that of the smaller of the two hard drives in the RAID configuration. For example, when a RAID-0 array is configured with one 40GB hard disk and one 60GB hard disk, the computer's total hard disk will appear to the operating system as 80GB - 40GB + 40GB (NOT 40GB + 60GB). You cannot use the remaining 20GB on the larger hard disk drive.

When RAID-1 is configured, the computer's total hard disk capacity will appear to the operating system as the smaller of the two hard disk drives used. For example, when RAID-1 is configured with one 40GB hard disk drive and one 80GB hard disk drive, the computer's total hard disk capacity will appear as only 40GB to the operating system.

❖   **Date of last media check—**Date and time when a media check was completed. Displays the most recent date that a media check or array rebuild occurred.

❖   **Assigned local drive**—Local drive letter assigned to the array.

Viewing the status of a hard disk drive

To view the status of a hard disk drive:

1   Start the TOSHIBA RAID Console utility by clicking **Start**, **All Programs**. Then select **TOSHIBA**, **RAID**, **RAID Console**.

2   Double-click the hard disk icon.

The Hard disk drive information window appears.
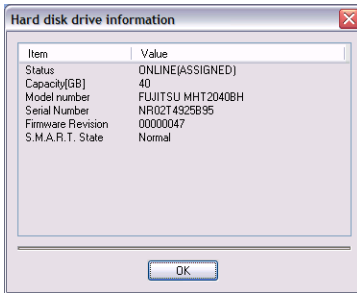
Sample hard disk drive information window

❖ **Status**—Displays the status of the physical drive.

   ❖ **Online—**The drives are working in a normal state.

   ❖ **Offline—**The drive is not used, as it is not configured as the logical drive.

   ❖ **Fail**—The drive is disabled, as a failure has occurred on the drive.

   ❖ **Locked**—The drive is locked by password.

   ❖ **Rebuilding**—The drive is being rebuilt using data from the good drive.

   ❖ **Absent**—The drive may have been removed from the computer.

❖ **Capacity**—Displays the drive capacity in gigabytes.

❖ **Model number**—Displays the drive model number.

❖ **Serial number**—Displays the drive serial number.

❖ **Firmware revision**—Displays the drive firmware revision.

❖ **S.M.A.R.T.**—Displays the state of S.M.A.R.T.

   ❖ **Normal**—S.M.A.R.T. is within specifications.

❖ **Warning**—The threshold value of S.M.A.R.T. has been exceeded.

Performing a media check on a RAID-1 array

A media check compares the data of the mirrored hard drives in an array to determine if there are any errors. If an error is detected during a media check, the data will be restored on the secondary internal hard disk based on the data on the primary internal hard disk.

A media check can only be performed on a mirrored array which is in an optimal state. Refer to for more information.

If the computer is performing a media check and the computer is restarted, the media check will resume when the computer is restarted.

NOTE By default the TOSHIBA RAID Utility is set up to perform a media check on the 3rd Wednesday of each month at 12:00 noon.

To perform a media check:

1 Plug in the AC adapter and power on the computer. (The computer must be running on power provided by the AC adapter to perform these steps.)

2 Start the TOSHIBA RAID Console utility by clicking **Start**, **All Programs**. Then select **TOSHIBA**, **RAID**, **RAID Console**.

3 Click **Media Check**.

The Confirm media check window appears.
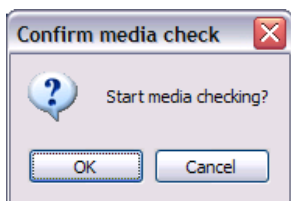
Sample Confirm media check window

4 Click **OK**.

A media check may take from several minutes up to one hour to be completed depending on the amount of data to be checked.

You may use the computer while performing a media check; however, the computer's performance may be slower than usual.

Breaking a RAID-0 array (striping)

If you want to permanently stop using the secondary internal hard disk drive for RAID-0, you must reinstall the Windows operating system from the Toshiba Recovery DVD that shipped with your system.

CAUTION   Before breaking the RAID-0 array, make sure you back up all data on your computer's hard drives onto another storage media. When a RAID-0 array is broken, all data on both your primary and secondary hard disks is erased and cannot be recovered. Toshiba is not responsible for any loss of data on your hard disks.

To break the RAID-0 array:

1 Plug in the AC adapter and power on the computer. (The computer must be running on power provided by the AC adapter to perform these steps.)

2 Insert the Recovery DVD that shipped with your system into the computer's CD/DVD drive.

3 Press **F12** to display the boot menu.

4 Press the right arrow key until the CD icon is highlighted; then, press **Enter**.

The following menu is displayed:

```
Your machine supports Redundant Array of Independent Disks
(RAID). Please select the RAID level.

1. Factory Default
   Setup the computer ready to support mirroring function.
You can use RAID Utility to configure two hard disks to
become mirror of each other, in which the same data is
written on both hard disks. If one hard disk fails, the
system can still run from the other hard disk. Before using
RAID Utility, your second hard disk can still work as
independent hard disk.

Advance Setting (for Advance users only)
2. RAID-1 - Automatically configure two hard disks of your
computer to become mirror after recovery process is
completed.
   WARNING: You can not use the second hard disk for any
other purpose until you use RAID Utility to end mirroring.
3. RAID-0 - Automatically configure computer to support
striping function - data is broken into blocks and written
to both hard disks simultaneously to increase the hard disk
performance.

WARNING: IF ONE HARD DISK FAILS, ALL DATA IS LOST.

Enter selection:"
```

Sample Toshiba Recovery DVD RAID Menu

5 Press **1** and then press **Enter** to break the RAID-0 array.

All data is permanently erased from both of your computer's internal hard disk drives and the computer is restored to its default settings.

NOTE   This process takes takes approximately one hour to complete.

Breaking a RAID-1 array (mirror)

If you want to permanently stop using the secondary hard disk drive for mirroring, you must break the RAID-1 array (mirror). When you break the RAID-1 array, all data is permanently erased from the secondary internal hard disk.

To break the RAID-1 array:

1   Click **Start**, **All Programs.** Then, select **TOSHIBA**, **RAID**, **RAID Console**.

The TOSHIBA RAID Console is displayed.

2   Click **Disable RAID**.

The Confirm disk mirroring window appears.

Sample Confirm disk mirroring window

3   Click **OK**.

The mirror between the primary internal hard disk and secondary internal hard disk is broken and the information on the secondary internal hard disk is permanently erased.

Rebuilding the data on the secondary disk in a RAID-1 array

If the secondary hard disk has been removed from the computer and you want to resume using the secondary hard disk for mirroring, you must reinsert the secondary hard disk drive into the computer.

If Auto Rebuild has previously been enabled on the Options window of the TOSHIBA RAID Console, rebuilding will start when the secondary hard disk drive is reinserted into the computer.

If Auto Rebuild has not previously been enabled:

1   Insert the secondary hard disk drive into the computer.

2   Plug in the AC adapter and power on the computer. (The computer must be running on power provided by the AC adapter to perform these steps.)

CAUTION   When rebuilding the RAID-1 array, all existing data on the secondary hard disk will be permanently erased and cannot be recovered. Toshiba is not responsible for any loss of data on the hard disk.

NOTE   If a hard disk password has previously been assigned, the password entry window will display. You must enter the hard disk password to continue.

3   The message "Mirror is broken" displays. Click **OK**.

4   Start up the TOSHIBA RAID Console Utility by clicking **Start**, **All Programs**. Then select **TOSHIBA**, **RAID**, **RAID Console**.

5   Click **Mirroring**.

The Confirm disk mirroring window appears.
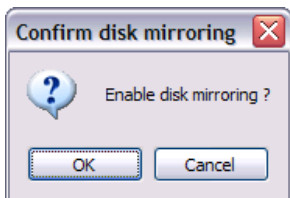
Sample Confirm disk mirroring window

6 Click **OK**.

7 The Confirm disk mirroring window appears.
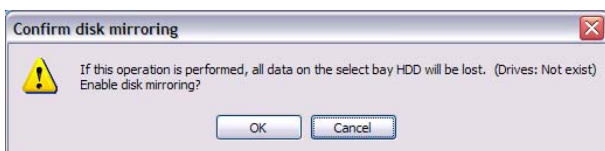
Sample Confirm disk mirroring window

8 Click **OK**.

The computer begins copying data from the internal hard disk to the secondary hard disk drive.

It may take several minutes or up to one hour to rebuild the array depending on the amount of data to be copied.

The progress of the rebuilding process can be viewed on the TOSHIBA RAID Console window.

Restoring a failed drive in a RAID-1 array

CAUTION If your computer's primary hard disk fails the failed hard disk can be removed and replaced with the secondary hard disk that contains the mirrored data.

Contact Toshiba Global Support Centre or a Toshiba Authorized Service Provider for assistance. Removing the failed primary hard disk and replacing it with the seconary hard disk improperly could damage your computer or result in the loss of data.

NOTE If you want to resume mirroring, you must purchase a new secondary hard disk and recreate the array. For information on recreating the array, see .

To restore a failed internal hard disk:

1 Remove the failed internal hard disk from the computer.

2 Replace the failed primary hard disk with the secondary hard disk (that contains the mirrored data).

3 Install a new secondary hard disk.

4 Plug in the AC adapter and power on the computer. (The computer must be running from power provided by the AC adapter to perform these steps.)

5 Restart the computer.

6 The New HDD detected window appears.

7 Click **OK**.

8 Click **Enable RAID** to copy data from the internal hard disk to the secondary hard disk.

Error message examples

The following error messages may be displayed on the
TOSHIBA RAID Console.

Not enough memory available.

Increase the available memory by shutting down one or more
applications.

**Another user is working in administrator mode.
Currently unable to use it.**

Another user is logged onto the computer as an administrator
and using the TOSHIBA RAID Console utility.

Only one administrator can use the TOSHIBA RAID Console
utility on your computer at one time.

**The number of connectable units has been exceeded.
Currently it will not connect to the RAID service as
another user is using it.**

Only one instance of the TOSHIBA RAID Console utility
can be opened on your computer at one time.

Unable to setup RAID, as the disk is in use.

Shut down the application currently in use and then set up
RAID.

**A failure has occurred in the array. Please press the
button to stop the beep.**

The configured mirroring on the disk appears to be abnormal.
Check the status of the array by starting the RAID Console. It
is necessary to replace the physical drive if the physical drive
has failed.

Chapter 8

If Something Goes Wrong

Some problems you may encounter when using your notebook computer are relatively easy to identify and solve. Others may require help from your dealer or the manufacturer of a software program.

This chapter aims to help you solve many problems by yourself. It covers the problems you are most likely to encounter. If all else fails, contact Toshiba. You will find information on Toshiba's support services at the end of this chapter.

Problems that are easy to fix

Your program stops responding.

If you are working with a program that suddenly freezes all operations, chances are the program has stopped responding. You can exit the failed program without shutting down the operating system or closing other programs.

281

To close a program that has stopped responding:

1   Press Ctrl, Alt, and Del simultaneously (once).

    The Windows Task Manager window appears.

2   Click the **Applications** tab.

    If a program has stopped responding, the words "not responding" appear beside its name in the list.

3   Select the program you want to close, then click **End Task**.

    Closing the failed program should allow you to continue working. If it does not, continue with step 3.

4   Close the remaining programs one by one by selecting the program name, then **End Task**.

5   Click **Start**, **Turn off computer**. (There is also a Shut Down option on the Windows Task Manager).

    The Turn off computer window appears.

6   Click **Turn off**.

    The computer turns off.

Your program performs an illegal operation.

If you receive the message, "Your program has performed an illegal operation," you should wait to see if it happens again. If it does, record the details of the message and consult the software manufacturer.

To record the details:

1   Click the **Details** button and select the text the operating system displays.

    The Details button displays information that the software manufacturer needs to help you solve your problem.

2   Press Ctrl and c simultaneously to copy the text to the clipboard.

3 Open Notepad (click **Start**, point to **All Programs**, then point to **Accessories** and click **Notepad**).

4 Press Ctrl and v simultaneously to paste the details into Notepad.

5 Add a paragraph break and type some notes describing what you were doing when you received the message, and how the error can be reproduced.

6 Save the file and refer to it when you contact the software manufacturer.

Problems when you turn on the computer

These problems may occur when you turn on the power.

The computer will not start.

Make sure you attached the AC adapter and power cord/cable properly or installed a charged battery.

Press and hold down the power button for at least 10 seconds.

If you are using the AC adapter, check that the wall outlet is working by plugging in another device, such as a lamp.

Verify that the computer is on by looking at the On/off indicator. If the indicator is glowing, the computer is on.

If you are using an AC adapter, verify that the computer is receiving power from the external power source by looking at the AC power light. If the indicator is glowing, the computer is connected to a live external power source.

The computer starts but, when you press a key, nothing happens.

Verify that the active program accepts text input. Try clicking your mouse on an area where you can type text, and try typing again.

Your computer may be in Stand By mode and have a software or resource conflict. When this happens, turning the power on

returns you to the problem instead of restarting the system. To clear the condition, press Ctrl, Alt, and Del simultaneously.

Clearing the condition may get the computer running, but it will not solve a resource conflict. Read both the documentation that came with the conflicting device and "Resolving a hardware conflict" on page 288.

The computer is not accessing the hard disk or the external diskette drive.

Your computer normally loads the operating system from the hard disk. If you have a hard disk problem, you will not be able to start the computer. Insert a system diskette into the external diskette drive and press F12 when the machine starts, then use the arrow keys to select the boot-up device.

The computer displays the WARNING RESUME FAILURE **message.**

The computer was placed in Stand By mode and the battery has discharged. Data stored in the computer's memory has been lost. However, data stored in the computer's hard drive may not be affected.

Always save your data even when you are using Stand By. If your battery fully discharges, information that has not been saved will be lost. Your computer can be configured to warn you when the battery is running low, see "What to do when the battery runs low" on page 125.

If you are running on battery power, it is recommended that you do not leave the computer in Stand By mode for long periods of time.

To charge the battery, leave the computer plugged into a live wall outlet for several hours. For more information, see "Power and the batteries" on page 293.

The computer displays the Non-System disk **or** disk error **message.**

Make sure there is no diskette in the optional external diskette drive. If there is one, remove it and press any key to continue. If pressing any key does not work, press Ctrl, Alt, and Del to restart the computer. For more information, see "The computer is not accessing the hard disk or the external diskette drive." on page 284.

The Windows® operating system is not working

Once you are familiar with the desktop and used to the way the operating system responds to your work routine, you can easily detect if the operating system is not working correctly. For example:

❖ The operating system fails to start after the Starting Windows XP message appears.

❖ The operating system takes a long time to start.

❖ The operating system responds differently from the normal routine.

❖ The screen does not look right.

Unless a hardware device has failed, problems usually occur when you change the system in some way such as installing a new program or adding a device.

If you experience any of these problems, use the options in the Startup menu to fix the problem.

Using Startup options to fix problems

If the operating system fails to start properly, you may have to change your system's configuration or verify the startup procedure to fix the problem. To do this, use the options in the Startup menu.

To open the Startup menu:

1 Restart your computer.

2 Press F8 when your computer starts and before Windows starts loading.

The Windows® Advanced Options menu displays these options:

❖ Safe Mode

❖ Safe Mode (with Networking)

❖ Safe Mode (with Command Prompt)

❖ Enable Boot Logging

❖ Enable VGA Mode

❖ Last known good configuration (your most recent settings that worked)

❖ Directory Services Restore Mode (Windows® domain controllers only)

❖ Debugging Mode

❖ Start Windows® normally

❖ Reboot

❖ Return to OS Choices (menu)

See your Windows® documentation for further explanation.

TECHNICAL NOTE: If your computer is connected to a network, the Startup menu may display different versions of Safe mode.

Internet problems

My Internet connection is very slow.

Many factors contribute to the speed with which you can surf the Internet. They include: modem speed, telephone line conditions, time of day (when everyone else is surfing, your access can be slow), and popularity of the site. If accessing a particular site is very slow, try later.

My browser cannot find the URL address I typed in.

Make sure you separated the domain names of the address with the forward slash (/). Check the spelling of each name and the syntax of the address carefully. A single incorrect letter or missed character, comma instead of period ("dot"), or other mistake makes it impossible for your browser to locate the site.

My browser cannot find a site I bookmarked.

The World Wide Web is constantly changing. A site you bookmarked yesterday may not be available today or its server may be down for temporary repair. Try again later.

The Windows® XP operating system can help you

If the operating system has started properly, but you still have a problem using your computer, the online Help can assist you in troubleshooting the problem.

To access Windows® XP Help and Support:

1 Click **Start**, then click **Help and Support**.

   The Help and Support window appears.

2 Then do one or both of the following:

   ❖ Enter the topic that you need help with in the Search field and follow the on-screen instructions.

   ❖ Click a problem you would like help with from the listings and follow the on-screen instructions.

You can connect to Support Online by clicking **Support** from the menu or by going to pcsupport.toshiba.com.

Resolving a hardware conflict

If you receive an error message telling you there is a device driver conflict or a general hardware problem, try using Windows® Help and Support to troubleshoot the problem first.

For help on hardware conflicts:

1 Click Start, then click **Help and Support**.

2 Click the **Hardware** link in the window's left pane.

   A list of category links appears.

3 Click the **Fixing a hardware problem** link.

4 Choose from specific topics and follow the steps.

If there is still a problem, the operating system should display a message that explains the conflict.

A plan of action

The smooth operation of the system depends on the interaction of all devices, programs, and features. If the system or one of its attached devices is not working, resolving the problem can be time-consuming and frustrating.

The recommended procedure for getting multiple devices to work together is to add and set up one device at a time. After you add each device, test it to make sure it and all previously connected devices work.

The device most recently connected to the system is the one most likely to be causing a hardware conflict.

Resolving hardware conflicts on your own

Computer components need resources to accomplish a task. A device, such as a disk drive or a modem, needs a channel to the computer's Central Processing Unit (CPU). It also needs a direct channel to the computer's memory to store information as it works. These channels of communication are commonly referred to as system resources.

Interrupt Request Channel

The channel to the CPU is called an Interrupt Request (IRQ) because it interrupts what the processor is doing and requests some of the processor's time.

Direct Memory Access

Similarly, the data required by the device is stored in a specific place or address in memory called the Direct Memory Access (DMA). The DMA provides a dedicated channel for adapter cards to bypass the microprocessor and access memory directly. If two or more devices use the same DMA, the data required by one device overwrites the data required by the other, causing a hardware conflict.

Resolving conflicts

There are several things you can do to resolve hardware conflicts:

❖ Get the most recent drivers from the manufacturer.

❖ Disable the device.

 For an older device, remove it from the computer.

❖ Disable another system component and use its resources for the new device, see "Fixing a problem with Device Manager" on page 290.

❖ Reconfigure the device so that its requirements do not conflict. Refer to the device's documentation for instructions about changing settings on the device.

Fixing a problem with Device Manager

Device Manager provides a way to check and change the configuration of a device.

CAUTION Changing the default settings using Device Manager can cause other conflicts that make one or more devices unusable. Device Manager is a configuration tool for advanced users who understand configuration parameters and the ramifications of changing them.

Disabling a device

1 Open the **Start** menu, click **Control Panel**, then **Performance and Maintenance**.

2 Click the **Administrative Tools** icon.

3 Double-click **Computer Management** and then click **Device Manager**.

4 Select the specific device from the device category. To expand a device category, double-click the category.

5 In the toolbar, look to the far right for an icon of a monitor with a strike mark through a circle on the front. This is the disable feature.

6 Click the icon.

You are given the option of disabling the device.

7 Click **Yes** to disable the device or **No** to cancel.

Checking device properties

Device Manager provides a way to view the properties of a device. Properties include the name of the manufacturer, the type of device, the drivers installed, and the system resources assigned to the device.

To check a device's properties:

1   Open the **Start** menu, then click **Control Panel**.

2   Click **Performance and Maintenance**, and then **Administrative Tools**.

3   Double-click **Computer Management**, and then click **Device Manager**.

4   To view the device(s) installed, double-click the device type.

5   To view the properties, double-click the device.

The operating system displays the Device Properties dialog box, which provides an array of tabs. They may include:

❖   The **General** tab, which provides basic information about the device.

❖   The **Resource** tab, which lists resources assigned to the monitor, DVD-ROM, multi-function drive, diskette disk drive, and other power-using functions. This tab does not appear if the device is not using resources.

❖   The **Drivers** tab, which displays the drivers being used by the device.

The tabs that appear in the dialog box vary from one device to another. A Troubleshooting button is also present.

6   Click **Troubleshoot...**

A Help and Support window for that device appears.

For more information about Device Manager, refer to Windows® XP online help.

Memory problems

Incorrectly connected or faulty memory modules may cause errors that seem to be device-related. It is worthwhile checking for these first:

1   Click **Start**, then click **Turn off computer**.

2   Click **Turn Off**.

The operating system shuts down and turns off the computer automatically.

3   Remove the memory module.

4   Reinstall the memory module, following the instructions in "Installing additional memory (optional)" on page 61, and making sure it is seated properly.

5   Check for the error again.

6   If the error recurs, remove the memory module entirely and check for the error again.

If removing the memory module eliminates the error, the memory module may be faulty. If the error recurs without the memory module installed, the error is not caused by the memory module.

TECHNICAL NOTE: You must have a least one memory module installed for the computer to work.

Power and the batteries

Your computer receives its power through the AC adapter and power cord/cable or from the system batteries (main battery and real-time clock (RTC) battery). Power problems are interrelated. For example, a faulty AC adapter or power cord/cable will neither power the computer nor recharge the batteries.

Here are some typical problems and how to solve them:

The AC power light does not come on when you plug in the AC adapter and power cord/cable.

Make sure the AC adapter and power cord/cable are firmly plugged into both the wall outlet and the computer.

If the AC power light still does not come on, check that the wall outlet is working properly by plugging in a lamp or other appliance.

The AC adapter and power cord/cable work correctly, but the battery will not charge.

The battery does not charge while the computer is consuming full power. Try turning off the computer.

The main battery may not be inserted correctly in the computer. Turn off the computer, remove the battery, clean the contacts with a soft dry cloth (if necessary), and replace the battery.

The battery may be too hot or too cold to charge properly. If you think this is the probable cause, let the battery reach room temperature and try again.

If the battery has completely discharged, it will not begin charging immediately. Leave the AC adapter and power cord/cable connected, wait 20 minutes and see if the battery is charging.

If the battery light is glowing after 20 minutes, let the computer continue charging the battery for at least another 20 minutes before you turn on the computer.

If the battery light does not glow after 20 minutes, the battery may have reached the end of its useful life. Try replacing it.

The battery appears not to power the computer for as long as it usually does.

If you frequently recharge a partially charged battery, it may not charge fully. Let the battery discharge completely, then try charging it again.

Check the power options using the Power Management utility. Have you added a device, such as a PC Card or memory module, that takes its power from the battery? Is your software using the hard disk more? Is the display power set to turn off automatically? Was the battery fully charged to begin with? All these conditions affect how long the charge lasts.

Battery life may vary, depending on applications, power management settings, and features utilized. Recharge time varies depending on usage. The battery may not charge while the computer is consuming full power.

After a period of time, the battery will lose its ability to perform at maximum capacity and will need to be replaced. This is normal for all batteries. To purchase a new battery pack, see your accessories information that shipped with your computer, or visit the Toshiba Web site at accessories.toshiba.com. Refer to this site often to stay current on the most recent software and hardware options for your computer, and for other product information.

To ensure that the battery maintains its maximum capacity, operate the computer on battery power at least once a month until the battery is fully discharged. Please see "Maximizing battery life" on page 133 for procedures. If the computer is continuously operated on AC power, either through an AC adapter or a docking station (if applicable to your system), for an extended period (more than a month), the battery may fail to retain a charge. This may shorten the life of the battery, and the battery light may not indicate a low-battery condition.

Keyboard problems

If, when you type, strange things happen or nothing happens, the problem may be related to the keyboard itself.

The keyboard produces unexpected characters.

A keypad overlay may be on. If the numeric keypad or cursor control light is on, press Fn and F10 simultaneously to turn off the cursor control light or press Fn and F11 simultaneously to turn off the numeric keypad light.

If the problem occurs when both the keypad overlays are off, make sure the software you are using is not remapping the keyboard. Refer to the software's documentation and check that the program does not assign different meanings to any of the keys.

You have connected an external keyboard and the operating system displays one or more keyboard error messages.

If you have a second keyboard, try it. If it works, the first keyboard may be defective or incompatible with your computer.

Display problems

Here are some typical display problems and their solutions:

The display is blank.

Display Auto Off may have gone into effect. Press any key to activate the screen.

You may have activated the instant password feature by pressing Fn and F1 simultaneously. If you have registered a password, press the Enter key, type the password, and press Enter. If no password is registered, press Enter. The screen reactivates and allows you to continue working.

If you are using the built-in screen, make sure the display priority is not set for an external monitor. To do this, press Fn and F5 simultaneously (once). If this does not correct the

problem, press Fn and F5 simultaneously again to return the display priority to its previous setting.

> HINT: Holding the Fn key and pressing the F5 key several times will advance you through the display options.

If you are using an external monitor:

❖ Check that the monitor is turned on.

❖ Check that the monitor's power cable is firmly plugged into a working power outlet.

❖ Check that the cable connecting the external monitor to the computer is firmly attached.

❖ Try adjusting the contrast and brightness controls on the external monitor.

❖ Press Fn and F5 simultaneously to make sure the display priority is not set for the built-in screen.

The screen does not look right.

You can change the display settings by clicking a blank area of the desktop with the secondary control button, then clicking **Properties**. This opens the Display Properties dialog box. The Appearance tab of this dialog box allows you to choose the colors for the screen. The Settings tab allows you to choose the screen resolution.

The built-in screen flickers.

Some flickering is a normal result of the way the screen produces colors. To reduce the amount of flickering, try using fewer colors.

To change the number of colors displayed:

1 Point at the desktop and click with the secondary button.

2 Click **Properties**, and then the **Settings** tab.

3 Change the Colors option and click **OK**.

For more information, see Windows® Help.

A message tells you that there is a problem with your display settings and that the adapter type is incorrect or the current settings do not work with your hardware.

Reduce the size of the color palette to one that is supported by the computer's internal display.

To change the display properties:

1   Point at the desktop and click with the secondary button.

     The Display Properties window appears.

2   Click **Properties**, then click the **Settings** tab.

3   Adjust the screen resolution and/or color quality.

4   Click **OK**.

The display mode is set to Simultaneous and the external display device does not work.

Make sure the external monitor is capable of displaying at resolutions of 800 x 600 or higher. Devices that do not support this resolution will only work in Internal/External mode, but not simultaneous mode.

Small bright dots appear on your TFT display when you turn on your computer.

Your display contains an extremely large number of thin-film transistors (TFT) and is manufactured using high-precision technology. The small bright dots that appear on your display are an intrinsic characteristic of the TFT manufacturing technology.

NOTE   Over a period of time, and depending on the usage of the computer, the brightness of the LCD Screen will deteriorate. This is an intrinsic characteristic of LCD technology.

The screen may be dimmer when the computer is operated on battery power, and you may not be able to increase the brightness of the screen until you plug the computer into AC power again.

Disk drive problems

Problems with the hard disk or with a diskette drive usually show up as an inability to access the disk or as sector errors. Sometimes a disk problem may cause one or more files to appear to have garbage in them. Typical disk problems are:

You are having trouble accessing a disk, or one or more files appear to be missing.

Make sure you are identifying the drive by its correct name (A: or C:).

Error-checking

Run Error-checking, which analyzes the directories, files, and File Allocation Table (FAT) on the disk and repairs any damage it finds:

To run Error-checking:

1   Click **Start**, then click **My Computer**.

2   Right-click the drive you want to check and select **Properties** from the menu.

The drive's properties box appears.

3   Click the **Tools** tab.

4   Click the **Check now** button.

The Check Disk All Apps box appears.

5 You can choose one or both options:

❖ Automatically fix file system errors

❖ Scan for and attempt recovery of bad sectors

6 Click **Start**.

Error-checking runs the test.

Your hard disk seems very slow.

If you have been using your computer for some time, your files may have become fragmented. Run Disk Defragmenter. To do this, click **Start**, then click **All Programs**, point to **Accessories** and **System Tools**, and click **Disk Defragmenter**.

Your data files are damaged or corrupted.

Refer to your software documentation for file recovery procedures. Many software packages automatically create backup files.

You may also be able to recover lost data using utility software, which is available from your dealer.

Some programs run correctly but others do not.

This is probably a configuration problem. If a program does not run properly, refer to its documentation and check that the hardware configuration meets its needs.

A diskette will not go into the external diskette drive.

You may already have a diskette in the drive. Make sure the drive is empty.

You may be inserting the diskette incorrectly. Hold the diskette with the hub side facing down, and insert it so that the metal head window cover goes into the drive first.

The metal cover or a loose label may be obstructing the path into the drive. Carefully inspect the diskette. If the metal cover is loose, replace the diskette. If the label is loose, replace the label and try inserting the diskette again.

The computer displays the Non-system disk or disk error **message.**

If you are starting the computer from a diskette, the diskette in the drive does not have the files necessary to start the computer. Replace it with a bootable diskette.

The drive cannot read a diskette.

Try another diskette. If you can access the second diskette, the first diskette (not the drive) is probably causing the problem. Run Error-checking on the faulty diskette (for instructions, see "Disk drive problems" on page 298).

DVD-ROM or multi-function drive problems

You cannot access a disc in the drive.

Make sure the CD-ROM or DVD-ROM is properly inserted.

Remove and then reinsert the disc.

Examine the disc to see if it is dirty. If necessary, wipe it with a clean damp cloth dipped in water or a neutral cleaner.

Make sure the disc is label side up.

If you are trying to play a DVD movie, it may not play because the DVD region does not match the DVD player region. For more information, see "Using the DVD-ROM or multi-function drive" on page 100.

You press the disc eject button, but the disc does not slide out.

Make sure the computer is connected to a power source and turned on. The DVD-ROM or multi-function drive eject mechanism requires power to operate.

Make sure a program is not accessing the drive and preventing it from ejecting.

Some discs run correctly, but others do not.

Check the type of disc you are using. The DVD-ROM drive supports the Digital Versatile Disc (DVD) formats DVD-ROM, DVD-R (read-only), plus CD-ROM, CD-R (read-only), and CD-RW (read-only).

If the problem is with an application CD-ROM, refer to the software's documentation and check that the hardware configuration meets the program's needs.

The disc will not come out of the drive when you click the eject button on the screen.

Press the button on the DVD-ROM drive itself. For additional information, see .

Sound system problems

You do not hear any sound from the computer.

Adjust the volume control.

Try pressing Fn + Esc to see if volume mute is disabled.

If you are using external headphones or speakers, check that they are securely connected to your computer.

The computer emits a loud, high-pitched noise.

This is feedback between the microphone and the speakers. It occurs in any sound system when input from a microphone is fed to the speakers and the speaker volume is too loud. Adjust the volume control.

PC Card problems

PC Cards (PCMCIA-compatible) include many types of devices, such as a removable hard disk, additional memory, or a pager.

Most PC Card problems occur during installation and setup of new cards. If you are having trouble getting one or more of

these devices to work together, several sections in this chapter may apply.

Resource conflicts can cause problems when using PC Cards. See "Inserting and removing PC Cards" on page 154 for more information.

Card Information Structure

When you insert a PC Card into a slot, the computer attempts to determine the type of card and the resources it requires by reading its Card Information Structure (CIS). Sometimes the CIS contains enough information for you to use the card immediately.

Other cards must be set up before you can use them. Use the Windows® XP PC Card (PCMCIA) Wizard to set up the card. Refer to your Microsoft® documentation for more information, or refer to the documentation that came with the PC Card.

Some card manufacturers use special software called *enablers* to support their cards. Enablers result in nonstandard configurations that can cause problems when installing the PC Card.

If your system does not have built-in drivers for your PC Card and the card did not come with an operating system driver, it may not work under the operating system. Contact the manufacturer of the PC Card for information about using the card under the operating system.

PC Card checklist

❖ Make sure the card is inserted properly into the slot.

See "Inserting and removing PC Cards" on page 154 for information about how to insert PC Cards.

❖ Make sure all cables are securely connected.

❖ Occasionally a defective PC Card slips through quality control. If another PCMCIA-equipped computer is available, try the card in that machine. If the card malfunctions again, it may be defective.

Resolving PC Card problems

Here are some common problems and their solutions:

The slots appear to be dead. PC Cards that used to work no longer work.

Check the PC Card status:

1 Click **Start**.

2 Click **My Computer** icon with the secondary button, then click **Properties**.

The System Properties dialog box appears.

3 Click the **Hardware** tab.

4 Click the **Device Manager** button.

5 Double-click the **PCMCIA adapter**.

6 Double-click the appropriate PC Card.

The operating system displays your PC Card's Properties dialog box, which contains information about your PC Card configuration and status.

The computer stops working (hangs) when you insert a PC Card.

The problem may be caused by an I/O (input/output) conflict between the PCMCIA socket and another device in the system. Use Device Manager to make sure each device has its own I/O base address. See "Fixing a problem with Device Manager" on page 290 for more information.

Since all PC Cards share the same socket, each card is not required to have its own address.

Hot swapping (removing one PC Card and inserting another without turning the computer off) fails.

Follow this procedure before you remove a PC Card:

1   Double-click the **PC Card** icon on the taskbar.

2   Click **Safely remove** *xxxx*, where *xxxx* is the identifier for your PC Card.

The operating system displays a message that you may safely remove the card.

3   Remove the card from the slot.

CAUTION   Never swap modules when the computer is in Hibernation or Stand By mode. This is known as "warm swapping" and is not supported with this computer. For more information on Hibernation and Stand By modes, see."Using Hibernation Mode" on page 110 and "Using Stand By Mode" on page 113.

The system does not recognize your PC Card.

Refer to the PC Card documentation.

Removing a malfunctioning card and reinstalling it can correct many problems.

A PC Card error occurs.

Reinsert the card to make sure it is properly connected.

If the card is attached to an external device, check that the connection is secure.

Refer to the card's documentation, which should contain a troubleshooting section.

Printer problems

This section lists some of the most common printer problems:

The printer will not print.

Check that the printer is connected to a working power outlet, turned on, and ready (online).

Check that the printer has plenty of paper. Some printers will not start printing when there are just two or three sheets of paper left in the tray.

Make sure the printer cable is firmly attached to the computer and the printer.

Run the printer's self-test to check for any problem with the printer itself.

Make sure you installed the proper printer drivers, as shown in "Connecting a local printer" on page 67 or in the instructions that came with the printer.

You may have connected the printer while the computer is on. Disable Stand By mode, turn off the computer, and turn off the printer. Turn the printer back on, make sure it is on line, then turn the computer back on.

Try printing another file. For example, you could create and attempt to print a short test file using Notepad. If a Notepad file prints correctly, the problem may be in your original file.

If you cannot resolve the problem, contact the printer's manufacturer.

The printer will not print what you see on the screen.

Many programs display information on the screen differently from the way they print it. See if your program has a print preview mode. This mode lets you see your work exactly as it will print. Contact the software manufacturer for more information.

Modem problems

This section lists common modem problems:

The modem will not receive or transmit properly.

Make sure the cable from the modem to the telephone line is firmly connected to the computer's modem port and the telephone line jack.

Check the port settings to make sure the hardware and software are referring to the same COM port.

Check the communications parameters (baud rate, parity, data length and stop bits) specified in the communications program. It should be set up to transmit at 300, 1200, 2400, 4800, 9600, 14400, 28800, 33600 bps (bits per second), or higher. Refer to the program's documentation and the modem manual for information on how to change these settings.

The modem is on, set up properly and still will not transmit or receive data.

Make sure the line has a dial tone. Connect a telephone handset to the line to check this.

The other system may be busy or off line. Try making a test transmission to someone else.

For more information regarding your system's V.92 modem, visit the Toshiba web site at pcsupport.toshiba.com.

Develop good computing habits

Make sure you are prepared.

Save your work frequently.

You can never predict when your computer will lock, forcing you to close a program and lose unsaved changes. Many software programs build in an automatic backup, but you should not rely solely on this feature. Save your work! See "Computing tips" on page 86 for instructions.

On a regular basis, back up the information stored on your hard disk.

Here are some ways you can do this:

❖ Copy files to diskette, following the steps in "Saving your work" on page 95.

❖ Connect a tape drive to the system and use specialized software to copy everything on the hard disk to a tape.

Some people use a combination of these methods, backing up all files to tape weekly and copying critical files to diskette on a daily basis.

If you have installed your own programs, you should back up these programs as well as your data files. If something goes wrong that requires you to reformat your hard disk and start again, reloading all your programs and data files from a backup source will save time.

Read the user's guides.

It is very difficult to provide a fail-safe set of steps you can follow every time you experience a problem with the computer. Your ability to solve problems will improve as you learn about how the computer and its software work together.

Get familiar with all the user's guides provided with your computer, as well as the manuals that come with the programs and devices you purchase.

Your local computer store or book store sells a variety of self-help books you can use to supplement the information in the manuals.

If you need further assistance

If you have followed the recommendations in this chapter and are still having problems, you may need additional technical assistance. This section contains the steps to take to ask for help.

Before you contact Toshiba

Since some problems may be related to the operating system or the program you are using, it is important to investigate other sources of assistance first.

Try the following before contacting Toshiba:

❖   Review the troubleshooting information in your operating system documentation.

❖   If the problem occurs while you are running a program, consult the program's documentation for troubleshooting suggestions. Contact the software company's technical support group for their assistance.

❖   Consult the dealer from whom you purchased your computer and/or program. Your dealer is your best source for current information.

Detailed system specifications are available at www.ts.toshiba.com by selecting your particular product and model number, clicking **GO**, and then clicking the **Detailed Specs** link from the menu on the left, or just refer to the computer documentation shipped with your product.

For the number of a Toshiba dealer near you in the United States, call: (800) 457-7777.

Contacting Toshiba

If you still need help and suspect that the problem is hardware-related, Toshiba offers a variety of resources to help you.

Toshiba's Technical Support Website

For technical support, or to stay current on the most recent software and hardware options for your computer, and for other product information, be sure to regularly check the Toshiba Web site at pcsupport.toshiba.com.

Toshiba voice contact

Before calling Toshiba, make sure you have:

❖ Your computer's serial number

❖ The computer and any optional devices related to the problem

❖ Backup copies of your Windows operating system and all other preloaded software on your choice of media

❖ Name and version of the program involved in the problem along with its installation media

❖ Information about what you were doing when the problem occurred

❖ Exact error messages and when they occurred

For technical support, call the Toshiba Global Support Centre:

Within the United States at (800) 457-7777

Outside the United States at (949) 859-4273

Other Toshiba Internet Web sites

toshiba.com	Worldwide Toshiba corporate site
computers.toshiba.com	Marketing and product information in the USA
www.toshiba.ca	Canada
www.toshiba-Europe.com	Europe
www.toshiba.co.jp/index.htm	Japan
http://servicio.toshiba.com	Mexico and all of Latin America

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Sydney
Australia

France
Toshiba Systèmes (France) S.A.
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92800 Puteaux Cédex
France

Italy
Centro Direzionale Colleoni
Palazzo Perseo
Via Paracelso 10
20041, Agrate Brianza
Milano, Italy

Latin America and Caribbean
Toshiba America Information
Systems
9740 Irvine Blvd.
Irvine, California 92618
USA

800-457-7777 (within the US)

949-859-4273 (outside of the US -
this call may incur long-distance
charges)

Canada
Toshiba Canada Ltd.
191 McNabb Street
Markham, Ontario
L3R - 8H2
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Toshiba Europe GmbH
Leibnizstraße 2
D-93055 Regensburg
Germany

Japan
Toshiba Corporation, PCO-IO
1-1, Shibaura 1-Chome
Minato-Ku, Tokyo, 105-8001
Japan

Mexico
Toshiba de México S.A. de C.V.
Sierra Candela No.111, 6to. Piso
Col. Lomas de Chapultepec.
CP 11000 Mexico, DF.

Spain

Toshiba Information Systems
(España) S.A.
Parque Empresarial San Fernando
Edificio Europa, 1a Planta
Escalera A
28831 (Madrid) San Fernando de
Henares
Spain

United States

Toshiba America Information
Systems, Inc.
9740 Irvine Boulevard
Irvine, California 92618
United States

United Kingdom

Toshiba Information Systems
(U.K) Ltd.
Toshiba Court
Weybridge Business Park
Addlestone Road
Weybridge, Surrey KT15 2UL
United Kingdom

The Rest of Europe

Toshiba Europe (I.E.) GmbH
Hammfelddamm 8
D-4-1460 Neuss
Germany

For more information on additional Toshiba worldwide
locations, please visit: www.toshiba.co.jp/index.htm.

Appendix A

Hot Keys

Hot keys are keys that, when pressed in combination with the Fn key, turn system functions on and off. Hot keys have a legend on or above the key indicating the option or feature the key controls.

Volume Mute

Fn +

This hot key enables/disables volume mute on your computer.

When volume mute is enabled, no sound will come from the speakers or headphones.

Instant password security

Fn + 〔F1 🔒〕   This hot key blanks the display.

When the display re-appears, select your user name and enter the correct password if you have created one.

Power usage profile
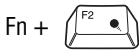
Fn + 〔F2 ●〕   This hot key displays the power usage pop-up window and cycles through the profiles.

The power usage profiles are:

Full Power, High Power, Normal, DVD Playback, Presentation, and Long Life.
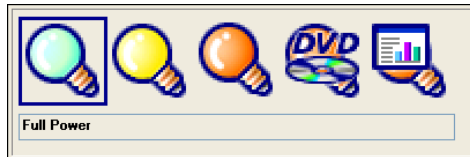
Sample power usage modes

The properties of each mode are set in the Toshiba Power Saver utility. For more information, see "Mobile Computing" on page 117.

Stand By mode

Fn +   This hot key places the computer into Stand By mode.

A message box is displayed, by default, to confirm that the computer is going into Stand By mode. You can choose not to display this message box.
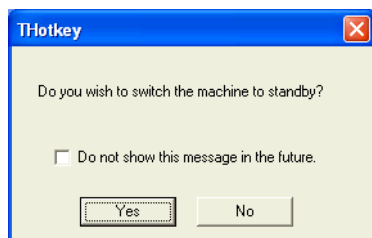
Sample Stand By confirmation box

For more information about Stand By mode, please see "Using Stand By Mode" on page 113.

Hibernation mode
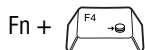
Fn + This hot key places the computer into Hibernation mode.

If Hibernation mode is enabled (the default), a message box is displayed by default to confirm the computer is going into Hibernation mode. The message box can be set so it does not display.
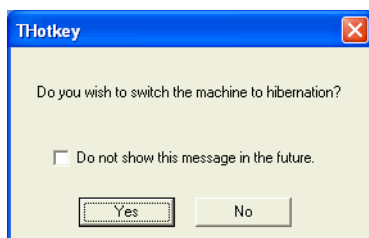
Sample Hibernation confirmation box

If Hibernation mode is disabled, this hot key will not respond.

Display modes

Fn + [F5 ▣/○]

This hot key cycles through the power-on display options.

The display modes are:

❖ Built-in display only

❖ Built-in display and external monitor simultaneously

❖ External monitor only

❖ Built-in display and TV (or other external video device) simultaneously

❖ TV (or other external video device) only

Sample display options window

To use a simultaneous mode, you must set the resolution of the internal display panel to match the resolution of the external display device.

Enabling a wireless device
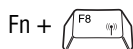
Fn + ⬚F8 (wireless icon)   This hot key enables/disables the optional wireless devices in your computer (for systems with Wi-Fi or Bluetooth™ only).

The wireless modes are:

Bluetooth™ enabled—This enables only the Bluetooth™ module.

Wi-Fi enabled—This enables only the Wi-Fi module.

Enable all devices—This enables all devices.

Disable all devices—This disables all devices.
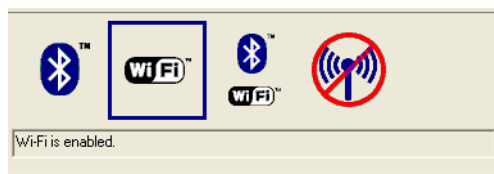
Sample wireless modes window

Display brightness

Fn + ⬚F6   This hot key decreases the screen brightness.
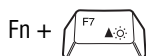
Fn + ⬚F7   This hot key increases the screen brightness.

Disabling or enabling the TouchPad
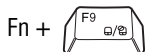
Fn + ⌨ F9 ▫/☝   This hot key enables/disables the TouchPad.

To use the TouchPad, see "Disabling or enabling the TouchPad" on page 60.

Sample disable and enable TouchPad windows

Keyboard hot keys
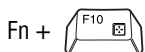
Fn + ⌨ F10 ⊠   This hot key turns the cursor control overlay on and off.
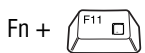
Fn + ⌨ F11 ▫   This hot key turns the numeric overlay on and off.
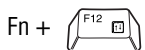
Fn + ⌨ F12 ▣   This hot key turns the scroll lock feature on and off.
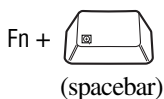
Fn + ⌨
(spacebar)   This hot key toggles the resolution between SVGA (800 x 600), XGA (1024 x 768), and SXGA+ (1400 x 1050).

Zooming applications in/out
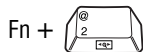
Fn + ⌨ @ 2   This hot key turns the Zooming utility to zoom-in. For more information, see "TOSHIBA Zooming Utility" on page 246.
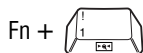
Fn + ⌨ ! 1   This hot key turns the Zooming utility to zoom-out. For more information, see "TOSHIBA Zooming Utility" on page 246.

Appendix B

Power Cord/Cable Connectors

The computer features a universal power supply you can use worldwide. This appendix shows the shapes of the typical AC power cord/cable connectors for various parts of the world.

USA and Canada

UL approved
CSA approved

United Kingdom
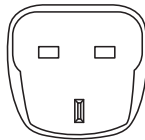
BS approved

Australia

AS approved

Europe
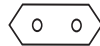
VDA approved
NEMKO approved

319

Appendix C

Using ConfigFree™ with your Toshiba Computer

ConfigFree™ is a set of utilities that makes it easy to control communication devices and network connections. ConfigFree also lets you identify communication problems and create profiles for easy switching between locations and communication networks.

NOTE   For the latest information on using ConfigFree, see the ConfigFree online help.

The ConfigFree utilities include the following:

❖ Connectivity Doctor—The Connectivity Doctor utility is used to analyze network connections and fix networking problems with your notebook computer. For more information, see "Connectivity Doctor" on page 323.

❖ Search for Wireless Devices—The Search for Wireless Devices utility searches for wireless LAN and Bluetooth devices used in the neighborhood, and displays information about them on a virtual map. For more information, see "Search for Wireless Devices" on page 326.

❖ Profile Settings—The Profiles utility lets you switch between network configurations. For more information, see "Profile Settings" on page 331.

❖ ConfigFree SUMMIT—The ConfigFree SUMMIT utility is used to connect with other ConfigFree users for file sharing. For more information, see "ConfigFree SUMMIT" on page 334.

ConfigFree also includes a screen saver that you can customize by adding identifying text to devices. Click **Options** on the Connectivity Doctor screen to access the screen saver option.

Getting Started

This section contains information about the ConfigFree main screen, and how to start and setup ConfigFree.

For more detailed information on setting up and using ConfigFree, see the Help File included in the application.

Starting ConfigFree

To start ConfigFree, be sure the computer has a wired or wireless connection. Then perform any of the following steps:

❖ (Microsoft® Windows® XP or 2000) Click the **Start** button, and select **All Programs**, **TOSHIBA**, **Networking**, **ConfigFree**.

❖ Double-click the **ConfigFree** icon 🖥️ on the taskbar.

❖ Press the **TOSHIBA Assist** button (if applicable to your system) to open the TOSHIBA Assist, and then click the **ConfigFree** icon.

❖ Click the **ConfigFree** icon 📡 on the taskbar, and then click the desired utility.

NOTE   If your computer is not connected to a network, the ConfigFree icon on the taskbar is displayed with an "X."

When you start a search for wireless devices, ConfigFree Launcher displays on your computer desktop. You can then click the appropriate icon on the Launcher to start the desired ConfigFree utilities.
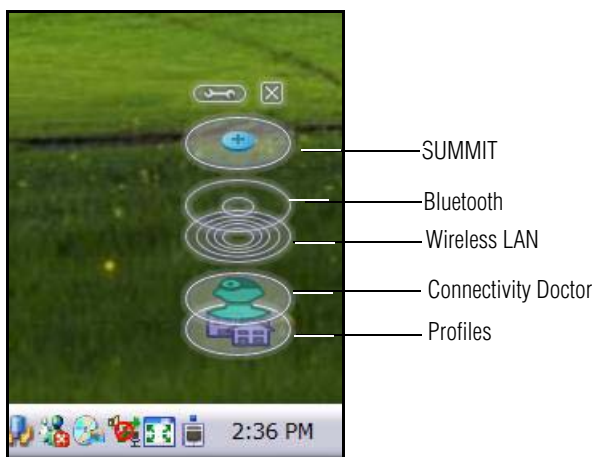
Sample ConfigFree Launcher

ConfigFree Launcher can be set to hide from view when it is not in use. When this setting is active (set the ConfigFree Launcher to Auto-hide mode), you can re-display ConfigFree Launcher by moving the mouse cursor to the right of the screen.

Sample ConfigFree Launcher Auto-hide mode setting
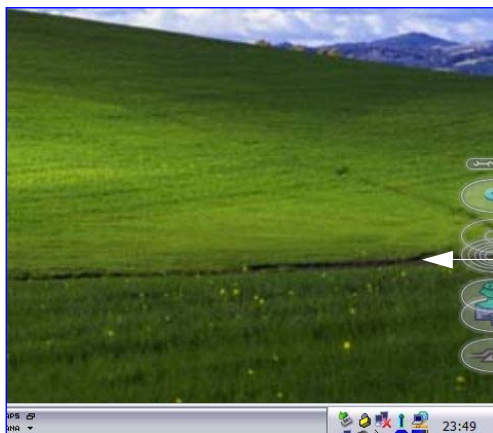
Sample ConfigFree Launcher coming back into view

ConfigFree Utilities

Connectivity Doctor

The Connectivity Doctor lets you analyze your network connections and fix network-connection problems. Using Connectivity Doctor, you can view detailed network information by simply moving the mouse pointer.

The Connectivity Doctor works with the following network devices:

❖   Wired and wireless network devices

❖ Routers, hubs, and bridges

❖ Access points

The Connectivity Doctor displays the following information:

❖ WEP (Used, not Used)

❖ Wired connection line (link speed)

❖ Wireless connection line (signal strength and link speed)

❖ Location of wireless communication switch (identified with a yellow arrow)

❖ Status of wireless communication switch (on or off)

Sample Connectivity Doctor screen

Moving the mouse pointer over a wired or wireless network device icon displays information about the device, such as its IP address, subnet mask, and MAC address. A wireless network device also shows information such as the network SSID and the device's Wired Equivalent Privacy (WEP) key settings.

Sample viewing device information

If a problem or potential problem is detected, in most cases, a screen automatically displays showing you the possible cause and solution for the problem.

A triangle containing an exclamation point also appears on the Connectivity Doctor screen and an orange frame describes the relevant location. You can also view the possible cause and solution for the problem by clicking the exclamation point. If multiple triangles display, you can toggle between each of their cause and solution information screens by clicking its exclamation point.

For example, if the connection to a wireless network cannot be established because the wireless communication switch is turned off, the problem description screen will normally display automatically when you start the Connectivity Doctor, and an exclamation point will appear next to the wireless communication switch.

The following checkboxes and buttons are provided on the Connectivity Doctor screen:

Stay on the task tray	When checked, the ConfigFree icon resides in the system tray.

Options	Displays ConfigFree setting screen.
Log	Lets you create a diagnostic log, view a history of log files, or delete the history. Log files are saved as CFhtml*xxxxx*.htm, where *xxxxx* is the creation date and time. They reside in the folder: C:\Documents and Settings*username*\Local Settings\Temp
About	Displays the version of Connectivity Doctor.
Help	Displays online help.
Close	Closes the Connectivity Doctor screen.

Search for Wireless Devices

The Search for Wireless Devices utility searches for wireless LAN and Bluetooth devices currently used in the neighborhood, and displays information about them on a virtual map.

To search for wireless devices:

1 Click the ☍ icon in the system tray.

2 Click **Search for Wireless Devices**.

A virtual map appears with a graphical representation of the wireless devices that have been detected.

NOTE   Search for Wireless Devices can also be started from the ConfigFree Launcher.

For Wi-Fi networks, the intensity of a signal is displayed in five levels or "bands." The signal from the connected access point is displayed in the bands surrounding the PC icon at the center of the map. The closer to the center, the stronger the

connection. Placing the pointer over the displayed "point of light" shows detailed information about the wireless device.

NOTE The wireless device shown near the center of the map is not necessarily near your notebook computer. If a wireless device located a distance away also has a strong signal, it appears near the center of the map as well.

The Search for Wireless Devices feature identifies if a device is IEEE 802.11a, b, or g. It also includes an option to display hidden access point availability.
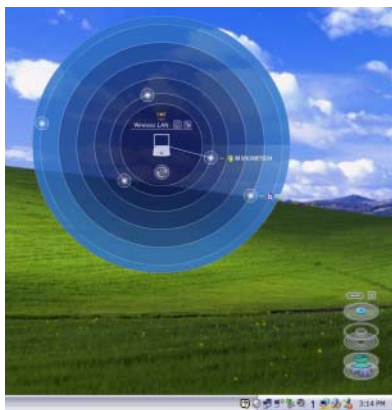
Sample viewing Wi-Fi devices

Creating a new wireless connection

NOTE This feature is only supported on systems running Windows XP SP2.

To add a new wireless connection to an Access Point:

1 Open the Search for Wireless Devices option from ConfigFree Launcher.

2   Drag and drop the device you want to connect to the PC icon at the center of the map.The Wireless Settings screen appears.
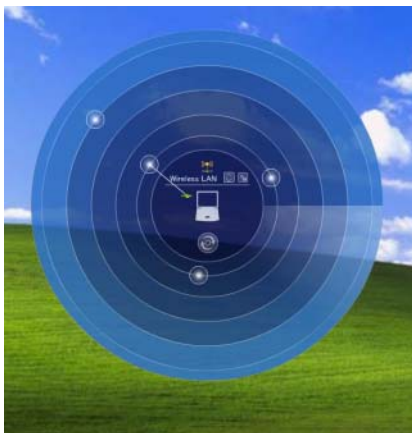
Sample dragging a device to the Access Point
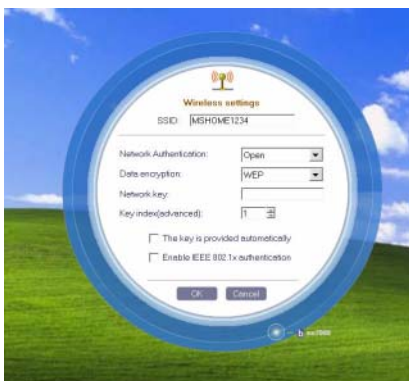
Sample Wireless settings screen

3 Enter the SSID/WEP information and connect to the device.

After the Access Point is setup and added to the connection list, the system displays the Connection screen rather than the Wireless settings screen.

Creating a detected device wireless connection

The following screen shows an example of Bluetooth devices that are detected using the **Search for Wireless Devices** option. Moving the mouse cursor over a device icon displays information about the device.

Sample viewing Bluetooth devices

You can connect to devices shown on the Bluetooth map:

1 Drag and drop the device you want to connect to the PC icon at the center of the map.

2 Configured devices are automatically connected. Devices not yet configured launch the Add New Connection Wizard, where you can configure and connect to the device.

Transferring files using Bluetooth

There are several ways to use Bluetooth to send files to other devices.

To select the device using the Bluetooth radar screen:

❖   Open the Bluetooth radar screen, and drag and drop the file directly onto the icon for that Bluetooth device.
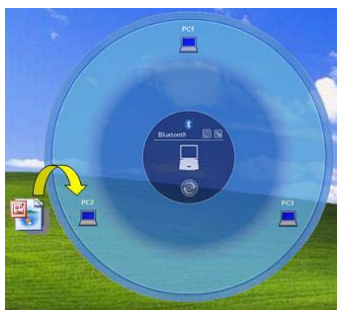
Sample dragging the file to the Bluetooth device icon

To be prompted for the device:

1   Drag and drop the file to the Bluetooth radar icon on the ConfigFree Launcher.

Sample dragging the file to the Bluetooth radar icon

Or, you can right click on the file and select **Send to Bluetooth Devices**.

Sample selecting Send to Bluetooth Devices option

2   Choose a file recipient.

3   Click **Send**.

NOTE   During a file transfer, connecting and disconnecting to the selected device will occur automatically.

Disconnecting from a Bluetooth device

To disconnect from a Bluetooth device:

1   Place the cursor on top of the connected line. The icon changes to a pair of scissors.

2   Click to disconnect from the device.

Profile Settings

The Profile Settings utility lets you save network settings in "profiles." ConfigFree profiles are useful for easily switching network settings and devices.You can switch network settings simply by selecting the profile with the desired settings.

If you visit a client company occasionally, for example, you can set up a profile to match that environment and connect to the network. Similarly, users who access networks in the

office and at home can set up profiles to handle these
networking environments.

A profile contains the currently configured network settings
on the computer, as well as information about any network
devices. The following settings can be saved (or "captured")
in a profile:

❖ **Internet settings** — includes LAN settings (proxy server
   settings) and the address of a home page that opens
   automatically when Internet Explorer starts.

❖ **Devices** — lets you enable or disable settings of wired
   and wireless network devices, infrared devices, and set
   the power status of Bluetooth antennas.

❖ **TCP/IP settings** — includes DHCP, IP address, subnet
   mask, default gateway, DNS server, and WINS server
   settings.

❖ Personal firewall settings for Internet connections.

❖ Dial-up connection settings for the default connection.

❖ File and printer sharing settings.

❖ Printer settings for the default printer.

❖ Bluetooth Security Level (for example, high or medium).

To create a profile:

1 Click the ![icon] icon in the system tray.

2 Move the pointer to **Profile**.

3 Click **Add**. The Add Profile screen appears.

4 Select **Capture** and click **OK**. The Add Profile screen
   appears.

5 Enter the name of the profile you want to create.

6 Enter any optional comments, if desired.

7 Click **Change Icon** and select an icon for this profile.

8   Click the ⌄ icon at the bottom of the screen to display more capture options.

9   Under **Captured Items**, select the items you want to capture for this profile.

10   If connecting with a wireless network, select the desired **Auto Switch Settings**. (These options are unavailable if wireless devices have been disabled.)

11   Under **Execute this program after switching**, click the **Browse** button and select the program, file, or Web site URL that is to start after switching to this profile.

For example to have Internet Explorer start in Windows XP after switching profiles, type:
C:\Program Files\Internet Explorer\IEXPLORE.EXE

12   Click **OK**.
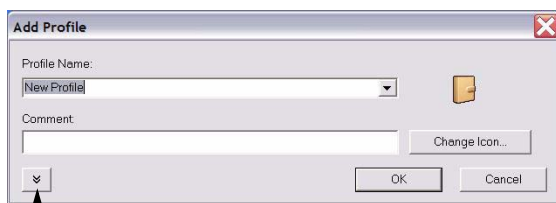
Press to show more capture options

Sample Add Profile screen
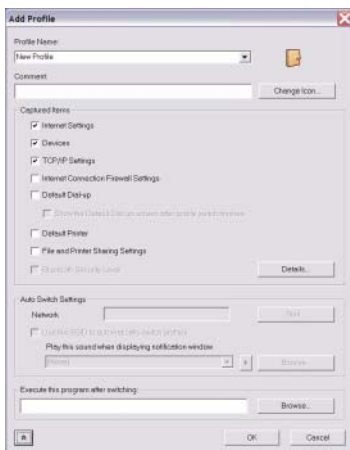
Sample expanded Add Profile screen

NOTE The online help provides real-world examples of setting up profiles for different networking environments.

After you set up one or more profiles, you can check their settings and fine-tune them as necessary. Profiles can also be imported and exported. This feature is useful when transferring profile settings to other computers. For more information about modifying, importing, and exporting profiles, refer to the online help.

ConfigFree SUMMIT

The ConfigFree SUMMIT utility is a convenient way to share files with other users and to transfer files between your computers at home and at work. This utility is faster and more dependable than sending the files via email.

Use this utility, which handles files regardless of size, to distribute presentations, reports, or music files to meeting attendees or to users at different locations.

The SUMMIT utility uses the following types of connections:

❖ Wireless LAN via Access Point

❖ Wireless LAN via Ad-Hoc

❖ LAN (same subnet)

❖ Bluetooth PAN/LAP

❖ Cross cable (Ethernet or Gbit Ethernet)

To host a ConfigFree SUMMIT, click the SUMMIT icon on the ConfigFree Launcher, select the users that you want to attend the SUMMIT meeting, and send them an invitation.

Select users

Send invitations
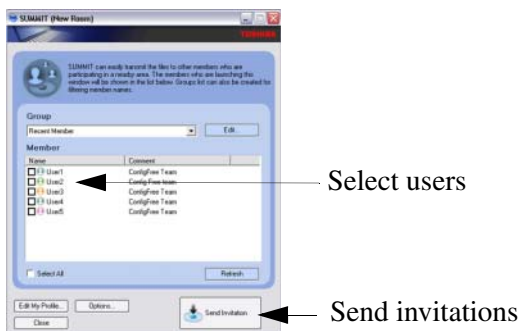
Sample of inviting users to SUMMIT meeting

When a user joins the SUMMIT, their icon appears on the SUMMIT table.

Sample of users attending SUMMIT meeting (user icons appear on SUMMIT table)

Files can be shared with one user or all users attending the meeting.

❖ To share a file with one user, drag and drop the file on the user's icon.

NOTE   Only the SUMMIT Host (the initiator) can share files with multiple user's by this method. SUMMIT user's can share a file with only one other user.

Sample of sharing a file with one user

❖ To share a file with all users, drag the file to the center of the SUMMIT table where users can access it as desired.

NOTE If you are the Host of the summit, and drag a file to the center of the SUMMIT table, it will automatically be sent to all SUMMIT users who can then accept or decline the file as desired.

Sample of sharing a file with all users

NOTE Participating users must be connected by LAN, wireless LAN, or Bluetooth (PAN). Firewall software may prevent ConfigFree SUMMIT from working.

Using ConfigFree SUMMIT

To host a ConfigFree SUMMIT:

1 Click the ![icon] icon in the system tray.

2 Click **SUMMIT**. Other users appear on the SUMMIT main window.

NOTE   SUMMIT can also be started from the ConfigFree Launcher.

3 Select the appropriate users and invite them to the SUMMIT meeting. As users join the SUMMIT, their icons appear on the SUMMIT table.

4 Use drag and drop to share documents with SUMMIT users:

❖ To share a file with one user, drag the file to the user's icon.

❖ To share a file with all users, drag the file to the center of the summit table.

There are other ways to send files to users.

To send files to all SUMMIT users:

1 Right click on the file and select **Send to SUMMIT Devices**.

2 Click **Send**.

To send files to a user without creating a SUMMIT meeting:

1 Drag and drop the file to the Wireless radar icon on the ConfigFree Launcher.

2 Right click on the file and choose a file recipient.

3 Click **Send**.

An Access Point may not always be available. To find out how to use Quick Connect to launch ConfigFree Summit, see .

Quick Connect

The Quick Connect feature includes two options:

❖ **Toshiba Wireless Projector.** Switches the Wireless LAN connection to connect to a Toshiba Wireless Projector

❖ **Direct Link Toshiba Device**. Launches ConfigFree SUMMIT

Toshiba Wireless Projector

The Quick Connect feature switches the Wireless LAN connection to connect to a Toshiba Wireless Projector. Once the projector utility is installed, launching the Quick Connect utility automatically opens the Wireless Data Projector Application. There you can configure how you would like to use the projector.

To connect to a Toshiba Wireless Projector:

1   Click the ⬛ icon in the system tray.

2   Move the mouse pointer to **Toshiba Wireless Projector (DPJ)**, then click **Connect**.

Launching Quick Connect prevents you from using the network to connect to a Toshiba Wireless Projector when the wireless LAN Configuration is set to Ad hoc. If you are connected to an access point, the connection is broken and re-established later.

To review the current Toshiba Wireless Projector settings and change them if necessary:

1   Click the ⬛ icon in the system tray.

2   Move the mouse pointer to **Toshiba Wireless Projector (DPJ)**, then click **Settings**. The Quick Connect properties dialog box appears.

3   Complete the settings. Refer to the online help if necessary.

4   Click **OK**.

NOTE   The default connection setting is for Ad hoc mode, therefore, if the setting on the Toshiba Wireless Projector is in Infrastructure mode, it will not connect, however; you can change the settings to Infrastructure mode to match the settings on the projector.

Sample Projector icon when connected with Quick Connect

If the wireless mode for the wireless setting is set for 5 GHz (802.11a), Quick Connect changes this mode to 2.4 GHz (802.11b) and then connects to the projector.

The wireless LAN configuration returns to the settings that were last used before the Quick Connect function was started:

❖   If the Toshiba Wireless Projector utility is closed

❖ If you select Toshiba Wireless Projector (DPJ) from the ConfigFree tray menu (this disconnects the wireless LAN connection)

❖ If you select a profile from the ConfigFree tray menu or when you disable a wireless device

❖ If you close ConfigFree

Direct Link Toshiba Device

When Access Point is not available, use the Direct Link Toshiba Device feature to connect your computer in ad-hoc (peer-to-peer) mode and use the Summit feature.

To use this feature:

1   Display the ConfigFree menu.

2   Select the ConfigFree Link option from the Direct Link Toshiba Device submenu. This action switches the computer's wireless network setting to ad-hoc mode, and launches the SUMMIT feature.
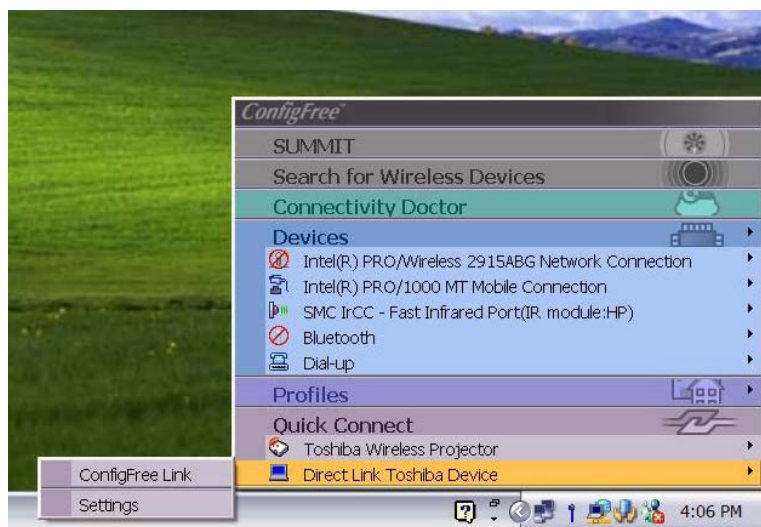
Sample using the Direct Link Toshiba Device feature

Using the Automatic Switch

The Automatic Switch feature allows the computer to automatically switch profiles the next time it is powered on. This feature is particularly useful if you want your computer to automatically switch from the network configuration you use in your office to the one you use at home.

The Auto Switch feature contains options for automatically switching between wired and wireless devices. With these options, the computer automatically switches to a wireless LAN network when the cable of the wired LAN network is removed from the computer. When the cable is reconnected, the connection to the wired LAN is re-established.

To use the Automatic Switch feature:

1   Right-click the 📲 icon in the system tray.

2   Click **Auto Switch**. The Auto Switch dialog box appears.

3   Check **Enable Wireless when cable disconnect occurs**.

4   Click **OK**.

NOTE　If your computer is connected to multiple wireless LAN devices, the Auto Switch (SSID) feature is disabled. To enable this feature, only one wireless LAN device can be used.

Semi-Automatic Switch Feature

The Semi-Automatic feature alerts you when the computer connects to a Service Set Identifier (SSID) stored in a profile, When the computer connects to the designated SSID, a notification window appears. You can then click this window to connect using the settings specified in the profile.

To use the Semi-Automatic Switch feature:

1 Right-click the icon in the system tray.

2 Click **Auto Switch**. The Auto Switch dialog box appears.

3 Select the **Auto Switch (SSID)** tab.

4 Select the profile to be automatically selected when the SSID is detected, then click **Add**. The profile is moved to the **List of target SSIDs and profiles**.

5 Repeat the previous step for each additional profile you want to select.

6 Select **Automatically switch profiles when connected to this SSID**.

7 Check **Automatically switch profile when connected to this SSID**.

8 Click **OK**.

The computer is now configured to use the Semi-Automatic Switch feature. When the computer connects to an SSID in a profile, a display notification window appears. You can then click **Switch** on the window to switch profiles. You can also set the option for having the switch be automatic without the need for a notification.

NOTE   Several profiles can be defined for a single SSID. In this case, several notification windows are displayed. By clicking these windows, you can switch to the profile for that location.

Glossary

Acronyms

These acronyms may appear in this user's guide.

AC	alternating current
BIOS	basic input/output system
bps	bits per second
CD	compact disc
CD-ROM	compact disc read-only memory
CD-RW	compact disc rewrite memory
CMOS	complementary metal-oxide semiconductor
COM1	communications port 1 (serial port)
COM2	communications port 2 (serial port)
CPU	central processing unit

DC	direct current
DMA	direct memory access
DIMM	dual inline memory module
DOS	disk operating system
DPI	dots per inch
DSTN	dual supertwist nematic
DVD	digital versatile (or video) disc
DVD-ROM	digital versatile (or video) disc read-only memory
ECP	enhanced capabilities port
EPROM	erasable programmable read-only memory
FAT	file allocation table
FCC	Federal Communications Commission
FIR	fast infrared
GB	gigabyte
HDD	hard disk drive
HTML	Hypertext Markup Language
IEEE	Institute of Electrical and Electronics Engineers
I/O	input/output
IRQ	interrupt request
ISP	Internet service provider
KB	kilobyte
LAN	local area network
LCD	liquid crystal display
LSI	large-scale integration
MB	megabyte
MIDI	Musical Instrument Digital Interface
PC	personal computer
PCI	Peripheral Component Interconnect
PCMCIA	Personal Computer Memory Card International Association

RAM	random access memory
RFI	radio frequency interference
ROM	read-only memory
RTC	real-time clock
SCSI	small computer system interface
DDRAM	double data random access memory
SRAM	static random access memory
SVGA	super video graphics adapter
TFT	thin film transistor
USB	universal serial bus
URL	uniform resource locator
WAN	wide area network
www	World Wide Web

Terms

These terms may appear in this user's guide.

A

active-matrix display—A liquid crystal display (LCD) made from an array of liquid crystal cells using active-matrix technology. Also known as a "TFT display," in its simplest form there is one thin film transistor (TFT) for each cell. This type of display works well with notebook computers because of its shallow depth and high-quality color. Active-matrix displays are viewable from wider angles than most passive-matrix displays.

adapter—A device that provides a compatible connection between two units. For example, the computer's internal display adapter receives information from the software and translates it into images on the screen. An adapter can take a number of forms, from a microprocessor to a simple connector. An intelligent adapter (one that is capable of doing some processing) may also be called a controller.

alternating current (AC)—The type of power usually supplied to residential and commercial wall outlets. AC reverses its direction at regular intervals. Compare *direct current (DC).*

application—A computer program that you use to perform tasks of a specific type. Applications include word processors, spreadsheets, and database management systems. See also *program*.

B

backup—A copy of a file, usually on a removable disk, kept in case the original file is lost or damaged.

basic input/output system (BIOS)—See *BIOS*.

baud rate—The speed at which a communication device, such as a printer or modem, transmits information. Baud rate is the number of signal changes per second (not necessarily the same as bits per second). See also *bits per second*.

BIOS (basic input/output system)—Basic instructions, stored in read-only memory (ROM), containing the information the computer needs to check hardware and load the operating system when you start up the computer.

bit:—Short for "binary digit." A bit is the smallest unit of information used by a computer. A group of eight bits is a byte. See also *byte*.

bits per second (bps)—A way of measuring the speed at which information is passed between two devices. The basic measure used in modem communications, bps is similar, but not identical, to the baud rate. See also *baud rate*.

boot—To start the computer. The term "boot" originates from bootstrap program (as in "pulling itself up by its bootstraps"), a program that loads and initializes the operating system. See also *reboot*.

boot disk—See *system disk*.

boot priority (startup sequence)—The order in which the computer accesses its disk drives to locate the startup files. Under the default startup sequence, the computer looks for the startup files in the diskette drive before checking the hard disk.

bus—An electrical circuit that connects the central processing unit (CPU) with other parts of the computer, such as the video adapter, disk drives, and ports. It is the pathway through which data flows from one device to another. See also *bus speed*, *frontside bus*.

bus speed—The speed at which the central processing unit (CPU) communicates with the other parts of the computer.

byte—A sequence of eight bits. A byte is the smallest addressable unit of data. See also *bit, gigabyte, kilobyte*, *megabyte*.

C

cache—A section of very fast memory in which frequently used information is duplicated for quick access. Accessing data from cache is faster than accessing it from the computer's main memory. See also *CPU cache, L1 cache, L2 cache.*

CD—An individual compact disc. See also *CD-ROM*.

CD-ROM (compact disc read-only memory)—A form of high-capacity storage that uses laser optics instead of magnetic means for reading data. See also *CD*. Compare *DVD-ROM*.

central processing unit (CPU)—The chip that functions as the "brain" of the computer. It takes information from outside sources, such as memory or keyboard input, processes the information, and sends the results to another device that uses the information.

character—Any letter, number, or symbol you can use on the computer. Some characters are non-printing characters, such as a paragraph break in a word-processing program. A character occupies one byte of computer storage.

chip—A small piece of silicon containing computer logic and circuits for processing, memory, input/output, and/or control functions. Chips are mounted on printed circuit boards.

click — To press and release the primary control button adjacent to the TouchPad or the mouse button without moving the TouchPad or mouse. In the Windows® operating system, this refers to the TouchPad left control button or the left mouse button, unless otherwise stated. See also *double-click*.

color palette—A set of specified colors that establishes the colors that can be displayed on the screen at a particular time.

compatibility—The extent to which computers, programs, or devices can work together harmoniously, using the same commands, formats, or language as another.

configuration—(1) The collection of components that make up a single computer system. (2) How parts of the system are set up (that is, configured).

controller—A device that controls the transfer of data from a computer to a peripheral device and vice versa. For example, disk drives, monitors, keyboards, and printers all require controllers.

CPU—See *central processing unit (CPU).*

CPU cache—A section of very fast memory residing between the CPU and the computer's main memory that temporarily stores data and instructions the CPU will need to execute commands and programs. See also *cache, L1 cache, L2 cache.*

cursor—A symbol that indicates the current position on the screen. The shape of the cursor varies, depending on the program you are using and what you are doing.

D

default—The setting selected by a program when the user does not specify an alternative setting.

device—A component attached to the computer. Devices may be external (outside the computer's case) or internal (inside the computer's case). Printers, disk drives, and modems are examples of devices.

device driver—A program (called a "driver") that permits a computer to communicate with a device.

dialog box—An on-screen window displayed by the operating system or a program giving a direction or requesting input from the user.

direct current (DC)—The type of power usually supplied by batteries. DC flows in one direction. Compare *alternating current (AC).*

direct memory access (DMA)—A dedicated channel, bypassing the CPU, that enables direct data transfer between memory and a device.

directory—See *folder.*

disable—To turn a computer option off. See also *enable.*

disc—A round, flat piece of metal, designed to be read from and written to by optical (laser) technology, and used in the production of optical discs, such as CDs and DVDs. Compare *disk.*

disk—A round, flat piece of material that can be magnetically influenced to hold information in digital form, and used in the production of magnetic disks, such as diskettes and hard disks. Compare *disc.* See also *diskette, hard disk.*

disk drive—The device that reads and writes information and programs on a diskette or hard disk. It rotates the disk at high speed past one or more read/write heads.

diskette—A thin, flexible disk in a protective jacket that stores magnetically encoded data. Diskettes can be removed from the computer and come in two sizes: 5.25-inch and 3.5-inch. Your computer uses 3.5-inch diskettes. See also *double-density diskette, high-density diskette.*

document—Any file created with an application and, if saved to disk, given a name by which it can be retrieved. See also *file*.

double-click—To press and release the primary control button adjacent to the TouchPad or mouse button rapidly twice without moving the TouchPad or mouse. In Windows, this refers to the TouchPad left control button or left mouse button, unless otherwise stated.

double-density diskette—A 3.5-inch diskette that can hold up to 720 KB of information (half the capacity of a high-density diskette). See also *diskette, high-density diskette.*

download—(1) In communications, to receive a file from another computer through a modem or network. (2) To send font data from the computer to a printer. See also *upload*.

drag—To hold down the mouse button while moving the cursor to drag a selected object. In Windows®, this refers to the left mouse button, unless otherwise stated.

driver—See *device driver*.

DVD—An individual digital versatile (or video) disc. See also *DVD-ROM*.

DVD-ROM (digital versatile [or video] disc read-only memory)—A very high-capacity storage medium that uses laser optics for reading data. Each DVD-ROM can hold as much data as several CD-ROMs. Compare *CD-ROM.*

E   **emulation**—A technique in which a device or program imitates another device or program.

enable—To turn on a computer option. See also *disable*.

executable file—A computer program that is ready to run. Application programs and batch files are examples of executable files. Names of executable files usually end with a .bat or .exe extension.

expansion device—A device that connects to a computer to expand its capabilities. Other names for an expansion device are port expander, port replicator, docking station, or network adapter.

extension—See *file extension*.

external device—See *device*.

F   **file**—A collection of related information, saved on disk with a unique name. A file may be a program, information used by a program, or a document. See also *document*.

file allocation table (FAT)—The section of a disk that keeps track of the location of files stored on the disk.

file name—A set of characters that uniquely identifies a file within a particular folder. It consists of two parts: the actual name and the file name extension. See also *file extension*.

file extension—The three characters following the period (pronounced "dot") at the end of a file name. The extension indicates the type of file. Examples are .exe for program files and .hlp for help files. See also *file name*.

folder—Also called directory. A container for organizing files saved to a disk. A folder is symbolized on screen by a graphical image (icon) of a file folder. A folder can contain files and other folders.

format—(verb) To prepare a blank disk for use with the computer's operating system. Formatting creates a structure on the disk so the operating system can write information to the disk or read information from it.

frontside bus—The primary pathway (bus) between the CPU and the computer's main memory. Also called "system bus." See also *bus*.

function keys—The keys labeled F1 through F12, typically located on the keyboard. Their function is determined by the operating system and/or individual programs.

G **gigabyte (GB)**—A unit of data equal to 1,073,741,824 bytes (1024 x 1024 x 1024 bytes). See also *byte.*

ground—A conductor to which all components of an electric circuit are connected. It has a potential of zero (0) volts, is connected to the earth, and is the point of reference for voltages in the circuit.

H **hard disk**—A storage device composed of a rigid platter or platters that can be magnetically coded with data. Hard disks hold much more information than diskettes and are used for long-term storage of programs and data. The primary (or only) hard disk in a computer is usually fixed, but some computers have secondary hard disks that are removable. By default, the hard disk is referred to as drive C.

hardware—The physical components of a computer system. Compare *software.*

Hibernation—A feature of many Toshiba notebook computers that saves to the hard disk the current state of your work, including all open files and programs, when you turn the computer off. When you turn on the computer again, your work is returned to the same state it was in when the computer was turned off. See also *Stand By, Suspend.*

high-density diskette—A 3.5-inch diskette that holds 1.44 MB of data. See also *diskette.*

hot key—(1) A feature in which certain keys in combination with the Fn key can set system options or control system parameters, such as the battery save mode. (2) A key or combination of keys that activates a memory resident program.

hot swapping—The ability to add or remove devices from a computer while the computer is running and have the operating system automatically recognize the change.

I **icon**—A small image displayed on the screen that represents a function, file, or program.

interlaced—A method of refreshing a computer screen, in which only every other line of pixels is refreshed. Interlaced monitors take two passes to create a complete screen image. Compare *non-interlaced.*

internal device—See *device.*

Internet—The decentralized, world-wide network of computers that provides electronic mail, the World Wide Web, and other services. See also *World Wide Web.*

K

keyboard shortcut—A key or combination of keys that you use to perform a task instead of using a pointing device such as a mouse.

kilobyte (KB)—A unit of data equal to 1024 bytes. See also *byte*.

L

L1 (level one) cache—Memory cache built into the processor to help improve processing speed. See also *cache, CPU cache, L2 cache.*

L2 (level two) cache—Memory cache installed on the motherboard to help improve processing speed. It is slower than L1 cache and faster than main memory. See also *cache, CPU cache, L1 cache.*

LAN (local area network)—A group of computers or other devices dispersed over a relatively limited area and connected by a communications link that enables any device to interact with any other on the network.

liquid crystal display (LCD)—A type of display that uses a liquid substance between two transparent electrode panels. When an electric current passes through the electrodes, the molecules in the liquid form a crystalline pattern that polarizes the light passing through it. A filter over the electrodes permits only non-polarized light to pass to the surface of the display, creating light and dark pixels.

load—To move information from a storage device (such as a hard disk) into memory for processing.

local area network—See *LAN.*

logical drive—A section of a disk that is recognized by the operating system as a separate disk drive. A system's logical drives may differ from its physical drives. For example, a single hard disk drive may be partitioned into two or more logical drives.

M   **megabyte (MB)**—A unit of data equal to 1,048,576 bytes (1024 x 1024 bytes). See also *bytes.*

memory—Typically refers to the computer's main memory, where programs are run and data is temporarily stored and processed. Memory can be volatile and hold data temporarily, such as RAM, or it can be nonvolatile and hold data permanently, such as ROM. A computer's main memory is RAM. See *RAM*, *ROM*.

microprocessor—See *central processing unit (CPU).*

MIDI (Musical Instrument Digital Interface)—A standard for connecting musical instruments, synthesizers, and computers. The MIDI standard provides a way of translating music into a form computers can use, and vice versa.

modem—Short for "modulator/demodulator." A device that converts information from digital to analog and back to digital, enabling information to pass back and forth between digital computers and analog telephone lines.

motherboard—The main circuit board in the computer. It contains the processor, memory, and other primary components.

MS-DOS® prompt—See *system prompt.*

multi-function drive—A DVD drive that can read and write to CD and DVD media.

multimedia—A combination of two or more media, such as sound, animation, and video in a computer program or presentation.

Musical Instrument Digital Interface—See MIDI.

N   **network**—A collection of computers and associated devices that are connected by communications facilities. A network allows you to share data and peripheral devices, such as printers, with other users and to exchange electronic mail.

non-interlaced—A method of refreshing a computer screen, in which each pixel of every line is refreshed as the electron beam scans across and down the screen. Compare *interlaced.*

non-system disk—A disk for storing programs and data that cannot be used to start the computer. Compare *system disk*.

O **online**—Available through the computer. Online may refer to information being read from your own computer's hard disk, such as online documentation or online help, or to information coming from another company on a company network or the Internet.

operating system—A set of programs that controls how the computer works. Examples of operating systems are Windows® XP and Windows® 2000.

P **palette**—See *color palette.*

parallel—Processes that occur simultaneously. In communications, it means the transmission of more than one bit of information at a time. A parallel port provides a parallel communications interface between a computer and an appropriate device. Compare *serial.*

password—A unique string of characters entered by a user to verify his or her identity to the computer or the network.

PC Card—A credit-card-sized expansion card designed to increase the capabilities of notebook computers. PC Cards provide functions such as modem, fax/modem, hard disk drive, network adapter, sound card, or SCSI adapter.

peripheral—Any device, such as a printer or joystick, that is attached to the computer and controlled by the computer's CPU.

pixel—Short for "picture element." The smallest dot that can be produced on a screen or printer.

Plug and Play—Generally, refers to the computer's ability to automatically configure itself to work with peripheral devices. When capitalized, refers to a standard that, when followed by a device manufacturer, allows a PC to configure itself automatically to work with the device.

pointing device—Any device, such as the TouchPad or a mouse, that enables you to move the cursor on the screen.

port—A socket on the computer where you plug in a cable for connection to a network or a peripheral device.

processor—See *central processing unit (CPU).*

program—A set of instructions that can be executed by a computer. The general classes of programs (also called software) are operating system, application, and utility. See also *operating system, application, utility.*

properties—The attributes of an object or device. For example, the properties of a file include the file's type, size, and creation date.

R   **RAM (random access memory)**—Volatile memory that can be written to as well as read. By volatile, we mean that information in RAM is lost when you turn off your computer. This type of memory is used for your computer's main memory. See also *memory.* Compare *ROM.*

random access memory—See *RAM.*

read-only memory—See *ROM.*

reboot—See *boot*, *restart.*

removable disk—A disk that can be removed from a disk drive. A diskette is one example of a removable disk.

resolution—A measure of the sharpness of the images that can be produced by a printer or displayed on a screen. For a printer, resolution is expressed in dots per inch (dpi). For a screen, it is expressed as the number of pixels available horizontally and vertically.

restart—Synonymous with reboot. To reset the computer by reloading the operating system without turning the computer off. See also *boot.*

RJ-11—A modular connector used on most U.S. telephone systems and direct-connect modems. The RJ-11 connector is a 6-wire connector.

ROM (read-only memory)—Non-volatile memory that can be read but not written to. By non-volatile, we mean that information in ROM remains whether or not the computer is receiving power. This type of memory is used to store your computer's BIOS, which is essential instructions the computer reads when you start it up. See also *BIOS, memory.* Compare *RAM.*

S   **select**—To highlight or otherwise specify text, data, or graphics with the intent to perform some operation on it.

serial—Processes that occur one at a time. In communications, it means the transmission of one bit at a time sequentially over a single channel. On your computer, the serial port provides a serial interface between a computer and an appropriate device. Compare *parallel.*

shortcut—See *keyboard shortcut.*

software—See *program.* Compare *hardware.*

Stand By—A feature of some Windows® operating systems that allows you to turn off the computer without exiting your open applications and to continue from where you left off when you turn the computer on again.

Suspend—A feature of some Windows® operating systems that allows you to turn off the computer without exiting your open applications and to continue from where you left off when you turn the computer on again.

system disk—A diskette that contains the operating system files needed to start the computer. Any diskette can be formatted as a system disk. A system disk is also called a "bootable disk" or a "startup disk." Compare *non-system disk.*

system prompt—The symbol (in MS-DOS®, generally a drive letter followed by a "greater than" sign) indicating where users are to enter commands.

T
U

TFT display—See *active-matrix display.*

universal serial bus (USB)—A serial bus that supports a data transfer rate of up to 480 Mbps (480 million bits per second). USB can connect up to 127 peripheral devices through a single all-purpose USB port. USB allows hot swapping of peripherals. See also *bus, hot swapping, serial.*

upload—To send a file to another computer through a modem or network. See also *download.*

USB—See *universal serial bus (USB).*

utility—A computer program designed to perform a narrowly focused operation or solve a specific problem. Utilities are often related to computer system management.

W **Web**—See *World Wide Web.*

Wi-Fi—A registered trademark owned by the Wireless Capability Ethernet Alliance which stands for Wireless Fidelity, and is another term for the communication protocol to permit an Ethernet connection using wireless communication components.

World Wide Web (www)—The worldwide network of Web sites linked together over the Internet. A user of the Web can jump from site to site regardless of the location of the computer hosting the site. See also *Internet.*

Index

359

X